

STERLING RANCH FILING NO. 2

COUNTY OF EL PASO, STATE OF COLORADO

GRADING, EROSION, AND STORMWATER QUALITY CONTROL PLAN

MARCH 2018

STANDARD CONSTRUCTION NOTES:

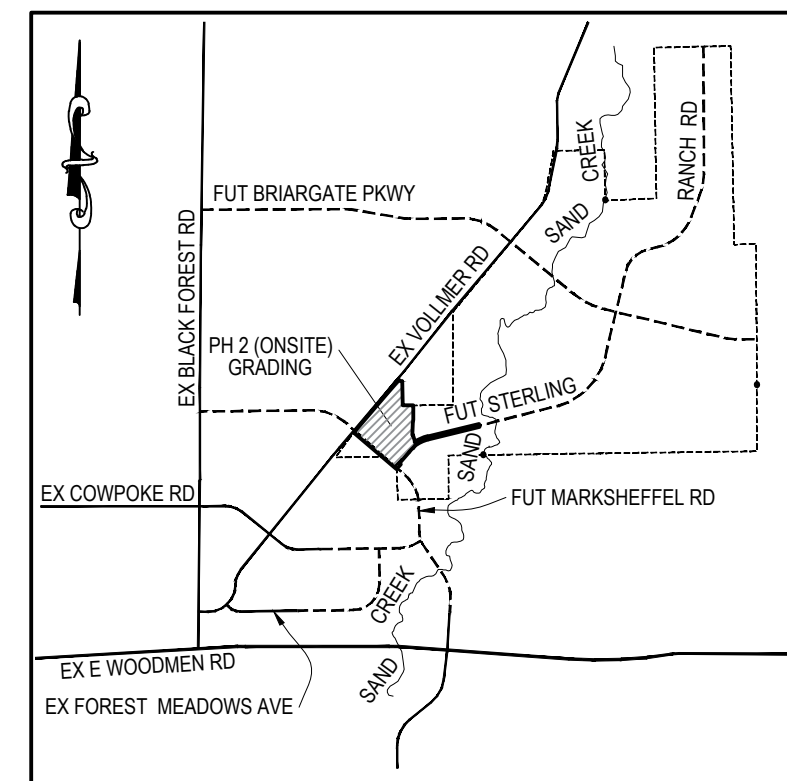
- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO SPRINGS.
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES INCLUDING THE FOLLOWING:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY ENGINEERING CRITERIA MANUAL VOLUMES 1 AND 2.
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
 - CDOT M&S STANDARDS.
- IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ACCURACY SHOW EXISTING CONDITION BOTH ONSITE AND OFFSITE ON THE CONSTRUCTION PLANS. ANY MODIFICATION NECESSARY DUE TO CONFLICT OMISSIONS OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPERS RESPONSIBILITY TO RECTIFY.
- ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPS AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY DSD INSPECTIONS STAFF.
- IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORM WATER QUALITY CONTROL PERMIT (ESQCP), US ARMY CORPS OF ENGINEER ISSUED 401 AND/OR 404 PERMITS AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE CONSTRUCTION SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- ANY TEMPORARY SIGNAGE AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOW AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRE BY EL PASO COUNTY DOT INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFFSITE DISTURBANCE GRADING, OR CONSTRUCTION.

GRADING AND EROSION CONTROL NOTES:

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPS AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY DSD INSPECTIONS STAFF.
- SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
- TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
- ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPS IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).
- ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPS AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
- ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- EROSION CONTROL BLANKETING IS TO BE USED ON SLOPES STEEPER THAN 3:1 OR OTHERWISE SHOWN ON PLANS.
- BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMP'S MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
- INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO ACTUAL CONSTRUCTION, THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY **Entech Engineering, Inc.** AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY CONTROL DIVISION, WQCD - PERMITS, 4300 CHERRY CREEK DRIVE SOUTH, DENVER, CO 80246-1530, ATTN: PERMITS UNIT.
- A PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED FEMA FLOODPLAIN IN ACCORDANCE WITH FLOOD INSURANCE RATE MAPS (FIRM) 08041C0535F, EFFECTIVE DATE MARCH 17, 1997.

PCD (revise all)

Entech Engineering, Identify the Report by job number or report date.



VICINITY MAP
N.T.S.

TIMING: APRIL 2018
ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING: NOVEMBER 2018
EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:
AREAS: 47.884 AC
TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED:
RECEIVING WATERS: SAND CREEK

LEGEND

- EXISTING INDEX CONTOUR (10')
- EXISTING NOMINAL CONTOUR (2')
- PROPOSED INDEX CONTOUR (10')
- PROPOSED NOMINAL CONTOUR (2')

Hydrocompaction

Areas in which hydrocompaction have been identified are acceptable as building sites. In areas identified for this hazard classification, however, we anticipate a potential for settlement movements upon saturation of these surficial soils. The low density, uniform grain sized, windblown sand deposits are particularly susceptible to this type of phenomenon. Other material types may also be susceptible.

Mitigation: The potential for settlement movement is directly related to saturation of the soils below the foundation areas. Therefore, good surface and subsurface drainage is extremely critical in these areas in order to minimize the potential for saturation of these soils. The ground surface around all permanent structures should be positively sloped away from the structure to all points, and water must not be allowed to stand or pond anywhere on the site. We recommend that the ground surface within 10 feet of the structures be sloped away with a minimum gradient of five percent. If this is not possible on the upslope side of the structures, then a well-defined swale should be created to intercept the surface water and carry it quickly and safely around and away from the structures. Roof drains should be made to discharge well away from the structures and into areas of positive drainage. Where several structures are involved, the overall drainage design should be such that water directed away from one structure is not directed against an adjacent building. Planting and watering in the immediate vicinity of the structures, as well as general lawn irrigation, should be minimized.

Are hydrocompaction, underdrains, positive drainage swales, and roof drain distances from homes addressed adequately?

AGENCIES

- OWNER: SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
JIM MORLEY (719) 471-1742
- CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.
20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
VIRGIL A. SANCHEZ P.E. (719) 955-5485
- ENGINEERING DIVISION: EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
JEFF RICE, P.E. (719) 520-6300
- TRAFFIC ENGINEERING: EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
JENNIFER IRVINE, P.E. (719) 520-6460
- WATER RESOURCES: STERLING RANCH METRO DISTRICT
JDS-HYDRO CONSULTANTS
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
JOHN MCGINN (719) 668-8769
- FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACHOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK (719) 498-4300
- GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556
- ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN ROAD
FALCON, CO 80831
(719) 495-2283
- COMMUNICATIONS: QWEST COMMUNICATIONS
(U.N.C.C. LOCATORS) (800) 922-1987
AT&T (LOCATORS) (719) 635-3674

ENGINEER'S STATEMENT:

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS REPORT.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC. DATE

OWNER'S STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

JAMES F. MORLEY DATE

SR LAND, LLC.
20 BOULDER, SUITE 201
COLORADO SPRINGS, CO 80903

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA AND ENGINEERING CRITERIA MANUAL AS AMENDED.

JENNIFER IRVINE, P.E.
COUNTY ENGINEER/ECM ADMINISTRATOR DATE

SHEET INDEX

- SHEET 1 TITLE SHEET
- SHEET 2 OVERALL GRADING & EROSION CONTROL PLAN
- SHEET 3 OVERALL GRADING & EROSION CONTROL PLAN
- SHEET 4 FSD POND W-4
- SHEET 5 OFFSITE DITCH GRADING & EROSION CONTROL
- SHEET 6 FSD POND W-5 GEC
- SHEET 7 POND W-5 RUNDOWN
- SHEET 8 SWALE, GRADING & EROSION CONTROL PLAN
- SHEET 9 SWALE, GRADING & EROSION CONTROL PLAN
- SHEET 10 TEMP. GRADING & EROSION CONTROL PLAN
- SHEET 11 TEMP. GRADING & EROSION CONTROL PLAN
- SHEET 12 EROSION CONTROL DETAILS



STERLING RANCH FILING NO. 2

GRADING & EROSION CONTROL PLAN

PROJECT NO. 09-002 DATE: 03/14/2018

SCALE: HORIZONTAL: N/A VERTICAL: N/A

DESIGNED BY: ET DRAWN BY: SM CHECKED BY: ET

SHEET 1 OF 12 GR01

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

M&S CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

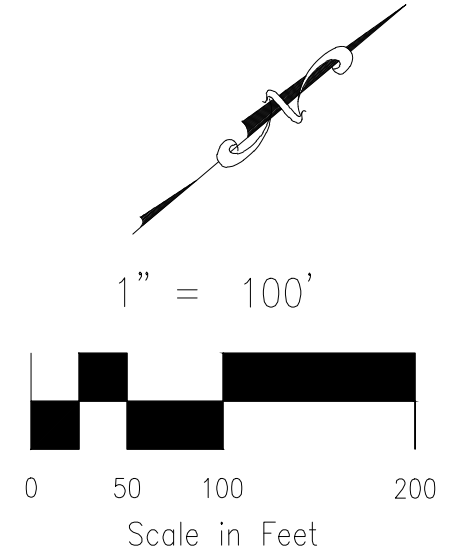
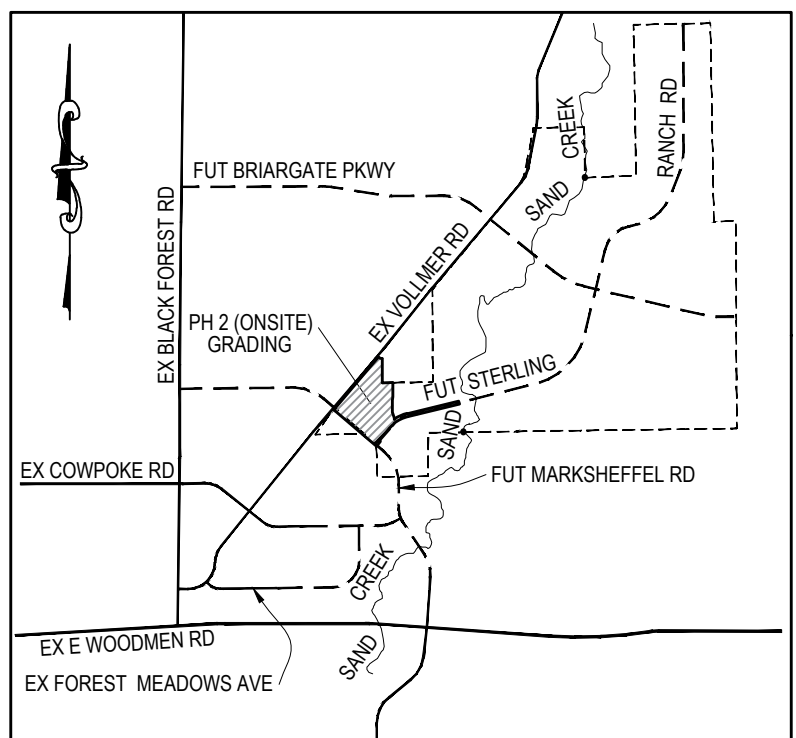
REVISIONS: NO. DATE: BY: DESCRIPTION:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

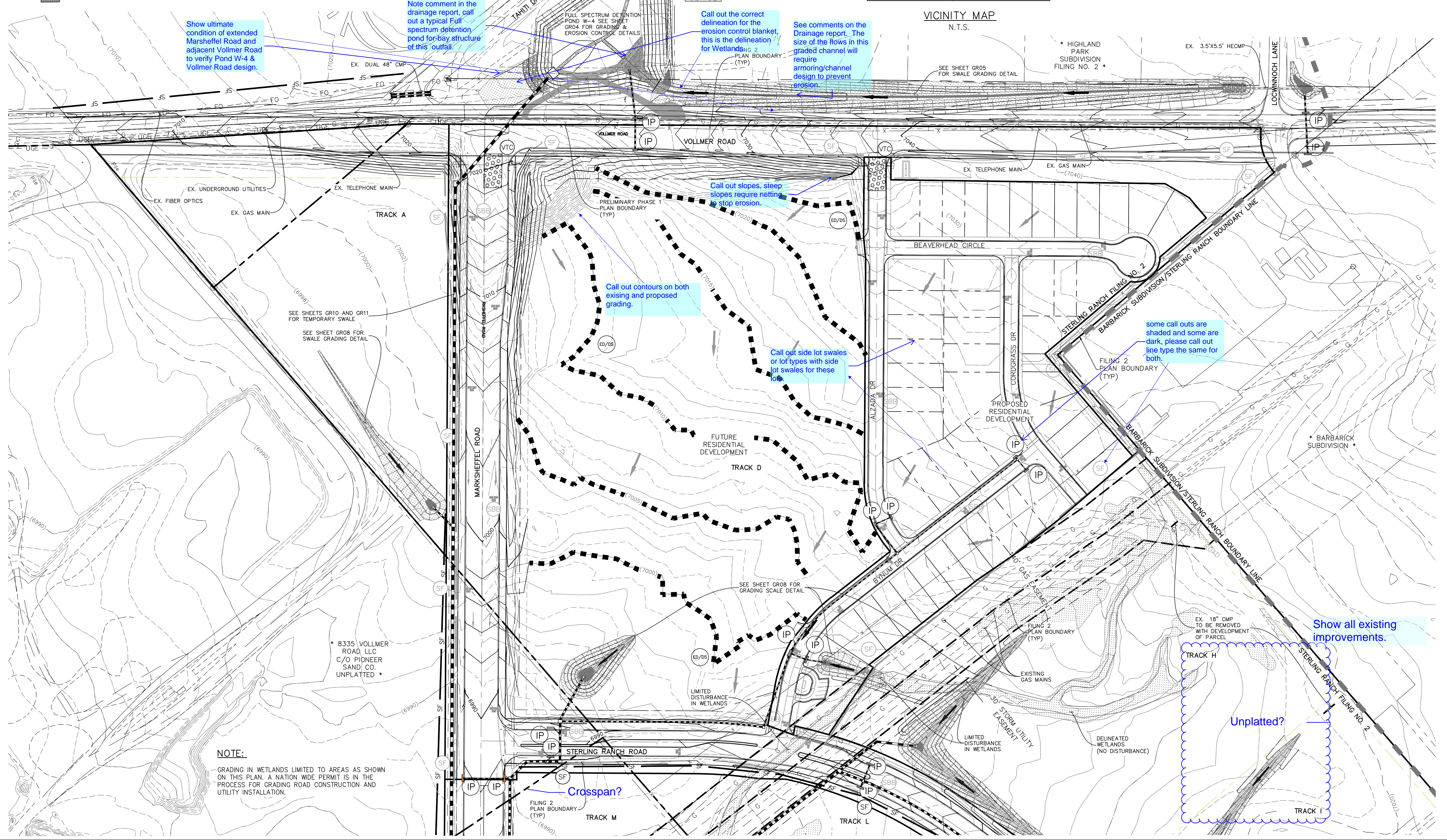
CAUTION

- LEGEND**
- xLP/xHP LOW POINT/ HIGH POINT
 - (6920) EXISTING INDEX CONTOUR (10')
 - (6918) EXISTING NOMINAL CONTOUR (2')
 - 6920 PROPOSED INDEX CONTOUR (10')
 - 6918 PROPOSED NOMINAL CONTOUR (2')
 - SF SILT FENCE
 - 2.00% FLOW DIRECTION & SLOPE
 - FLOW DIRECTION ARROW
 - EXISTING FLOW DIRECTION ARROW
 - PROPOSED RIPRAP

- IP INLET PROTECTION
- SBB STRAW BALE DITCH CHECK
- SF SILT FENCE
- VTC VEHICLE TRACKING CONTROL
- DELINEATED WETLANDS NO DISTURBANCE
- PRELIMINARY PLAN BOUNDARY/LIMITS OF DISTURBANCE
- ED/DS EARTH DIKES & DRAINAGE SWALES
- 100YR 100YR FLOODPLAIN
- TEMPORARY RIPRAP PAD
- TRM TURF REINFORCEMENT MAT (NORTH AMERICAN GREEN SC-250 OR APPROVED EQUAL, SEE MANUFACTURE SPECIFICATIONS FOR INSTALLATION DETAILS)
- SB TEMPORARY SEDIMENT BASIN
- PROPOSED STORM SEWER
- EXIST STORM SEWER
- SF EXIST SILT FENCE
- SBB EXIST STRAW BALE DITCH CHECK
- SB EXIST TEMPORARY SEDIMENT BASIN
- STABILIZED MAINTENANCE ROAD ABOVE EURV
- STABILIZED MAINT. ROAD BELOW EURV
- NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET
- NORTH AMERICAN GREEN SC250 PERM EROSION CONTROLBLANKET



FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
 FOR BURIED UTILITY INFORMATION
 48 HRS BEFORE YOU DIG
 CALL 1-800-922-1987



Show ultimate condition of extended Marshsheffel Road and adjacent Voller Road to verify Voller Road design.

Note comment in the drainage report, call out a typical Full spectrum detention pond for-bay structure of this outfall.

Call out the correct delineation for the erosion control blanket, this is the delineation for Wetlands 2.

See comments on the Drainage report. The size of the flows in this graded channel will require armoring/channel design to prevent erosion.

Call out slopes, steep slopes require netting to stop erosion.

Call out contours on both existing and proposed grading.

Call out side lot swales or lot types with side lot swales for these lots.

some call outs are shaded and some are dark, please call out line type the same for both.

Show all existing improvements.

Unplatted?

Crossspan?

NOTE:
 GRADING IN WETLANDS LIMITED TO AREAS AS SHOWN ON THIS PLAN. A NATION WIDE PERMIT IS IN THE PROCESS FOR GRADING ROAD CONSTRUCTION AND UTILITY INSTALLATION.

STERLING RANCH FILING NO. 2

OVERALL GEC PLAN

DATE: 03/14/2018

SCALE: HORIZONTAL: 1"=100' VERTICAL: N/A

PROJECT NO. 09-002

DESIGNED BY: ET

DRAWN BY: BB

CHECKED BY: ET

20 BOULDER CRESCENT SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

M&S CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

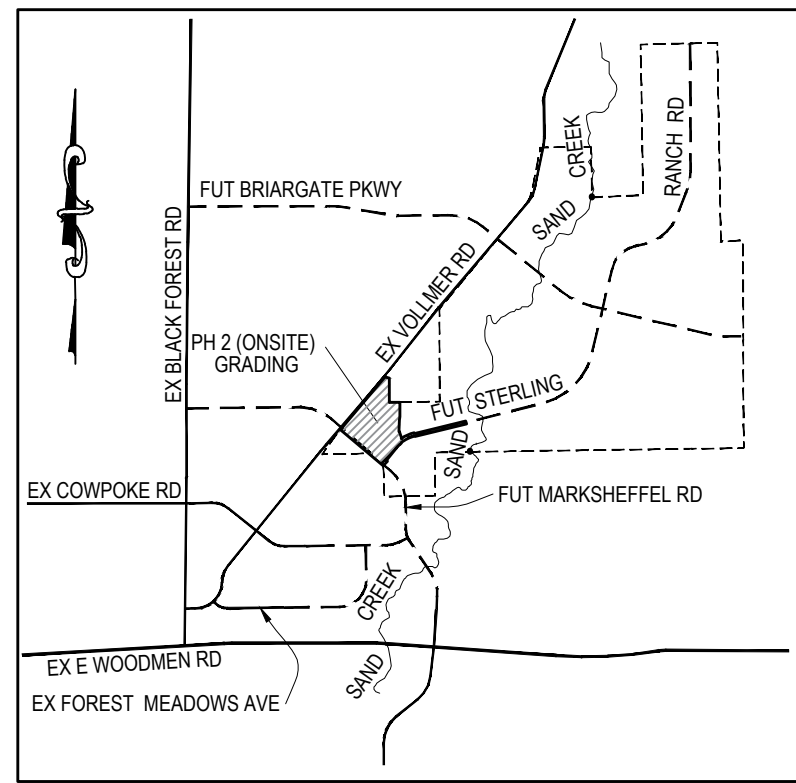
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APPROVED BY: _____ DATE: _____

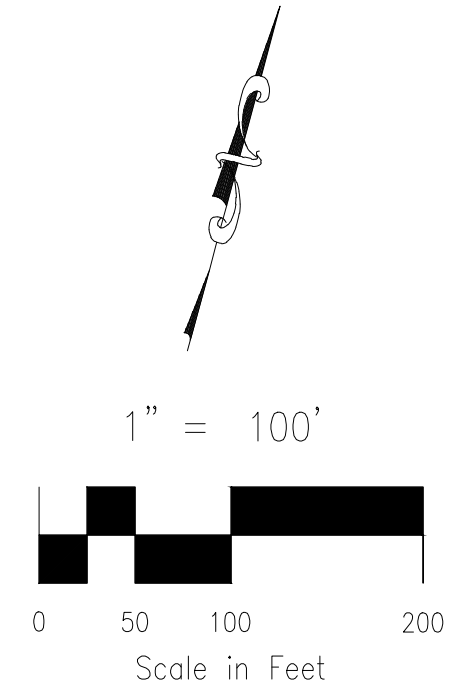
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CAUTION

File: 0:\06002A\Sterling Ranch District - Filing 2\Map\Const Draw\Grading & Erosion Control\Filing 2\GR02.dwg Plotstamp: 3/14/2018 9:25 AM



VICINITY MAP
N.T.S.

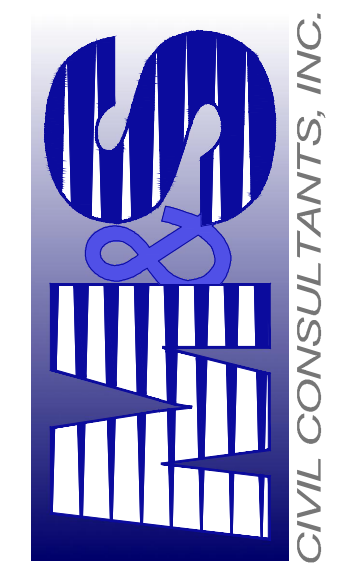


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STERLING RANCH FILING NO. 2
OVERALL GEC PLAN

PROJECT NO. 09-002
DATE: 03/14/2018
SCALE: HORIZONTAL: 1"=100'
VERTICAL: N/A
DESIGNED BY: ET
DRAWN BY: BB
CHECKED BY: ET

20 BOULDER CRESCENT SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

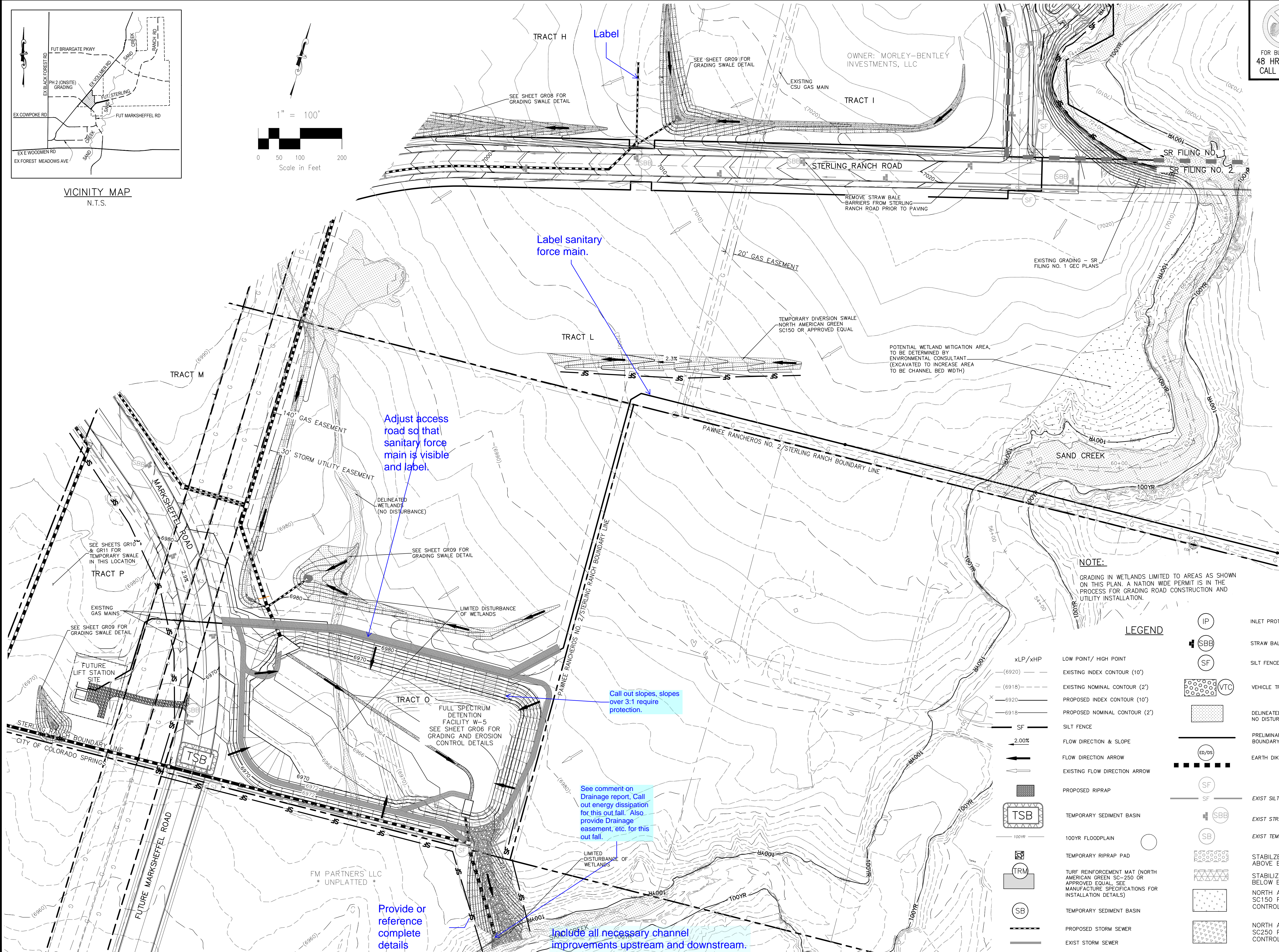


FOR AND ON BEHALF OF
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CAUTION



Label
Label sanitary force main.

Adjust access road so that sanitary force main is visible and label.

Call out slopes, slopes over 3:1 require protection.

See comment on Drainage report, Call out energy dissipation for this outfall. Also provide Drainage easement, etc. for this outfall.

Provide or reference complete details

Include all necessary channel improvements upstream and downstream.

NOTE:
GRADING IN WETLANDS LIMITED TO AREAS AS SHOWN ON THIS PLAN. A NATION WIDE PERMIT IS IN THE PROCESS FOR GRADING ROAD CONSTRUCTION AND UTILITY INSTALLATION.

LEGEND

- IP INLET PROTECTION
- SBB STRAW BALE DITCH CHECK
- SF SILT FENCE
- VTC VEHICLE TRACKING CONTROL
- DELINEATED WETLANDS NO DISTURBANCE
- PRELIMINARY PLAN BOUNDARY/LIMITS OF DISTURBANCE
- EB/DB EARTH DIKES & DRAINAGE SWALES
- SF EXIST SILT FENCE
- SBB EXIST STRAW BALE DITCH CHECK
- SB EXIST TEMPORARY SEDIMENT BASIN
- STABILIZED MAINTENANCE ROAD ABOVE EURV
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- NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET
- NORTH AMERICAN GREEN SC250 PERM EROSION CONTROLBLANKET
- xLP/xHP LOW POINT/ HIGH POINT
- (-6920) EXISTING INDEX CONTOUR (10')
- (-6918) EXISTING NOMINAL CONTOUR (2')
- 6920 PROPOSED INDEX CONTOUR (10')
- 6918 PROPOSED NOMINAL CONTOUR (2')
- SF SILT FENCE
- 2.00% FLOW DIRECTION & SLOPE
- FLOW DIRECTION ARROW
- EXISTING FLOW DIRECTION ARROW
- PROPOSED RIPRAP
- TSB TEMPORARY SEDIMENT BASIN
- 100YR 100YR FLOODPLAIN
- TRM TEMPORARY RIPRAP PAD
- TURF REINFORCEMENT MAT (NORTH AMERICAN GREEN SC-250 OR APPROVED EQUAL. SEE MANUFACTURE SPECIFICATIONS FOR INSTALLATION DETAILS)
- SB TEMPORARY SEDIMENT BASIN
- PROPOSED STORM SEWER
- EXIST STORM SEWER

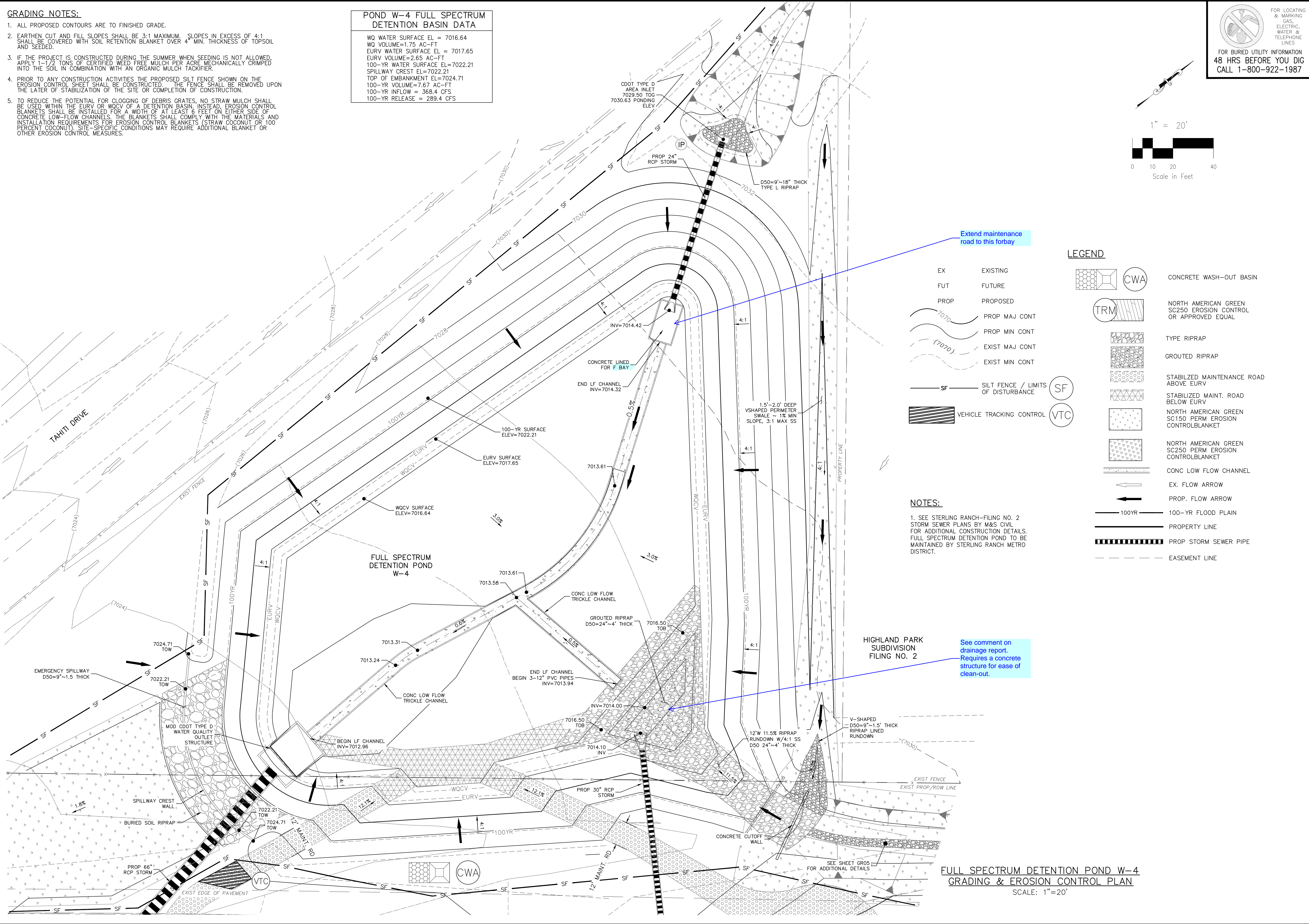
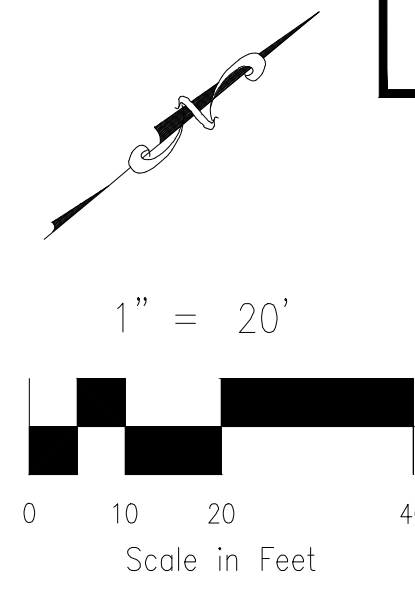
GRADING NOTES:

- ALL PROPOSED CONTOURS ARE TO FINISHED GRADE.
- EARTHEN CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM. SLOPES IN EXCESS OF 4:1 SHALL BE COVERED WITH SOIL RETENTION BLANKET OVER 4" MIN. THICKNESS OF TOPSOIL AND SEEDED.
- IF THE PROJECT IS CONSTRUCTED DURING THE SUMMER WHEN SEEDING IS NOT ALLOWED, APPLY 1-1/2 TONS OF CERTIFIED WEED FREE MULCH PER ACRE MECHANICALLY CRIMPED INTO THE SOIL IN COMBINATION WITH AN ORGANIC MULCH TACKIFIER.
- PRIOR TO ANY CONSTRUCTION ACTIVITIES THE PROPOSED SILT FENCE SHOWN ON THE EROSION CONTROL SHEET SHALL BE CONSTRUCTED. THE FENCE SHALL BE REMOVED UPON THE LATER OF STABILIZATION OF THE SITE OR COMPLETION OF CONSTRUCTION.
- TO REDUCE THE POTENTIAL FOR CLOGGING OF DEBRIS GRATES, NO STRAW MULCH SHALL BE USED WITHIN THE EURV OR WOCV OF A DETENTION BASIN. INSTEAD, EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR A WIDTH OF AT LEAST 6 FEET ON EITHER SIDE OF CONCRETE LOW-FLOW CHANNELS. THE BLANKETS SHALL COMPLY WITH THE MATERIALS AND INSTALLATION REQUIREMENTS FOR EROSION CONTROL BLANKETS (STRAW COCONUT OR 100 PERCENT COCONUT). SITE-SPECIFIC CONDITIONS MAY REQUIRE ADDITIONAL BLANKET OR OTHER EROSION CONTROL MEASURES.

POND W-4 FULL SPECTRUM DETENTION BASIN DATA

WO WATER SURFACE EL = 7016.64
 WO VOLUME=1.75 AC-FT
 EURV WATER SURFACE EL = 7017.65
 EURV VOLUME=2.65 AC-FT
 100-YR WATER SURFACE EL=7022.21
 SPILLWAY CREST EL=7022.21
 TOP OF EMBANKMENT EL=7024.71
 100-YR VOLUME=7.67 AC-FT
 100-YR INFLOW = 368.4 CFS
 100-YR RELEASE = 289.4 CFS

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
 FOR BURIED UTILITY INFORMATION
 48 HRS BEFORE YOU DIG
 CALL 1-800-922-1987



Extend maintenance road to this forbay

- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- 7070 PROP MAJ CONT
- 7070 PROP MIN CONT
- 7070 EXIST MAJ CONT
- 7070 EXIST MIN CONT
- SF SILT FENCE / LIMITS OF DISTURBANCE
- VTC VEHICLE TRACKING CONTROL

- LEGEND**
- CWA CONCRETE WASH-OUT BASIN
 - TRM NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL
 - TYPE RIPRAP
 - GRouted RIPRAP
 - STABILIZED MAINTENANCE ROAD ABOVE EURV
 - STABILIZED MAINT. ROAD BELOW EURV
 - NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET
 - NORTH AMERICAN GREEN SC250 PERM EROSION CONTROLBLANKET
 - CONC LOW FLOW CHANNEL
 - EX. FLOW ARROW
 - PROP. FLOW ARROW
 - 100YR 100-YR FLOOD PLAIN
 - PROPERTY LINE
 - PROP STORM SEWER PIPE
 - EASEMENT LINE

NOTES:
 1. SEE STERLING RANCH-FILING NO. 2 STORM SEWER PLANS BY M&S CIVIL FOR ADDITIONAL CONSTRUCTION DETAILS. FULL SPECTRUM DETENTION POND TO BE MAINTAINED BY STERLING RANCH METRO DISTRICT.

HIGHLAND PARK SUBDIVISION FILING NO. 2
 See comment on drainage report. Requires a concrete structure for ease of clean-out.

FULL SPECTRUM DETENTION POND W-4 GRADING & EROSION CONTROL PLAN
 SCALE: 1"=20'

STERLING RANCH FILING NO. 2
 FULL SPECTRUM DETENTION POND W-4
 PROJECT NO. 09-002
 DATE: 03/14/2018
 SCALE: HORIZONTAL: 1"=20' VERTICAL: N/A
 DESIGNED BY: ET
 DRAWN BY: JWP
 CHECKED BY: ET

20 BOULDER CRESCENT SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.4485

CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

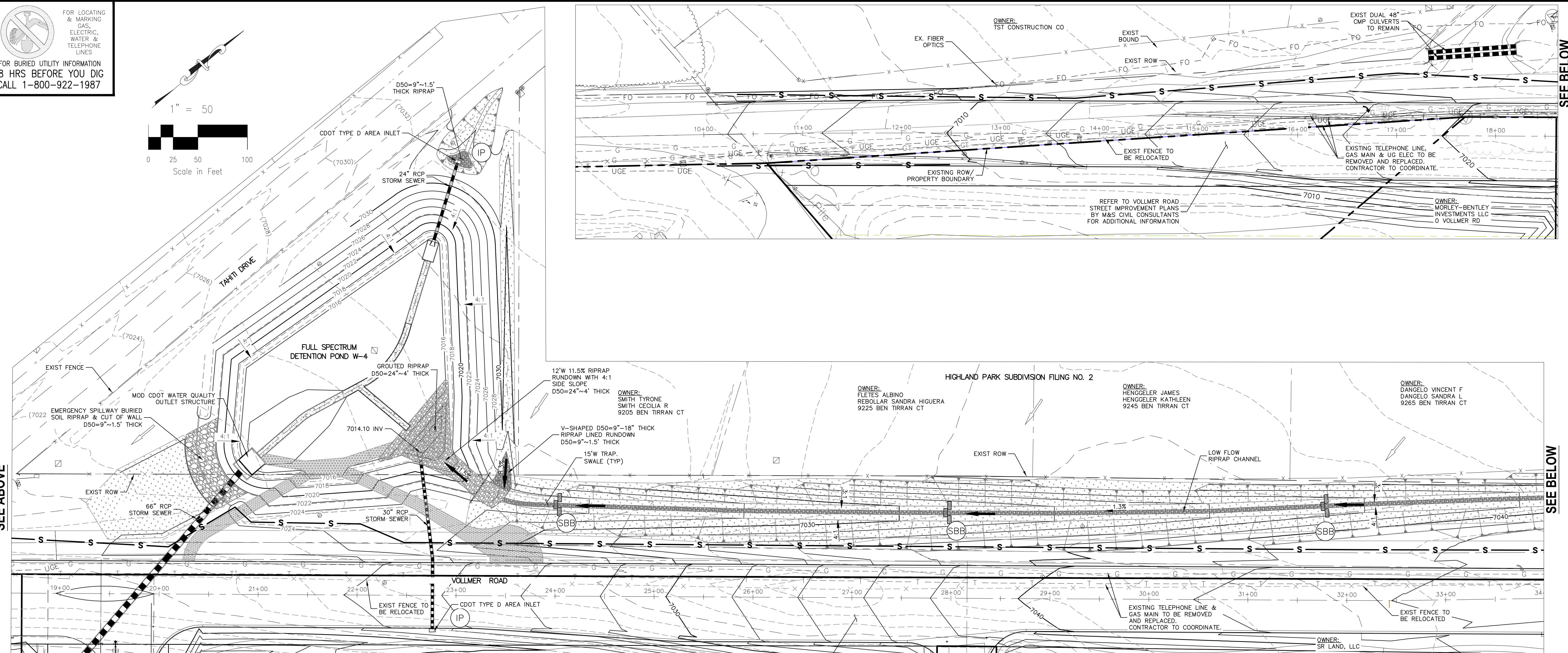
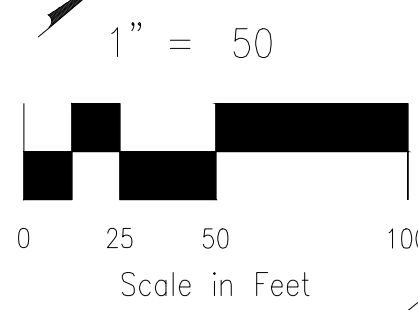
NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

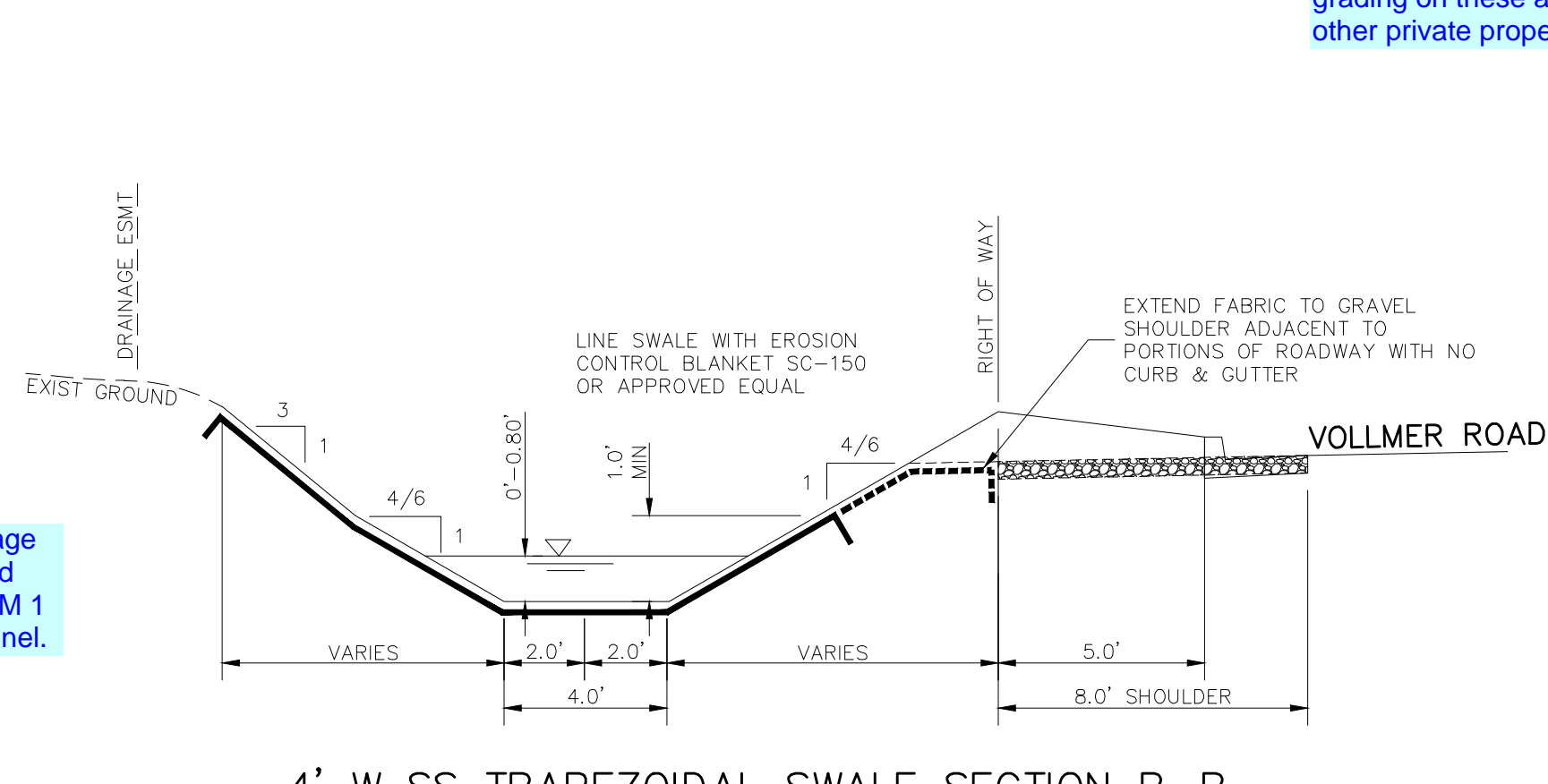
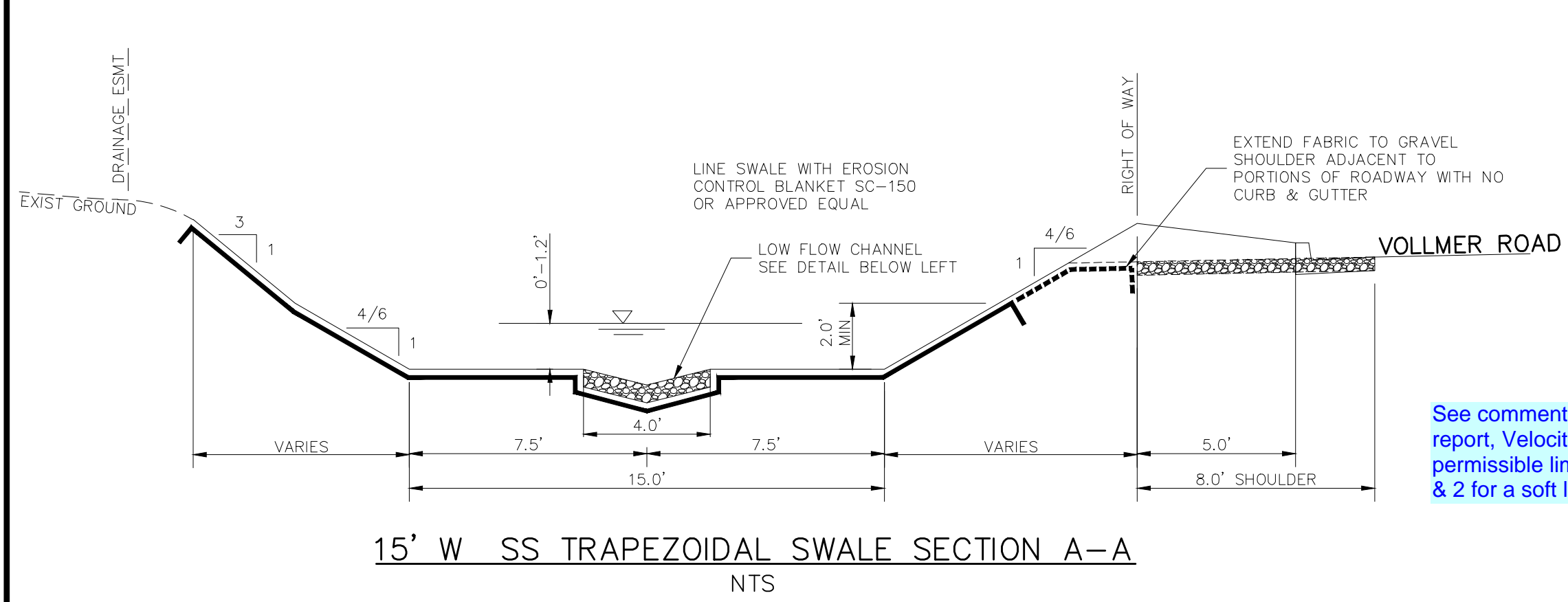
CAUTION

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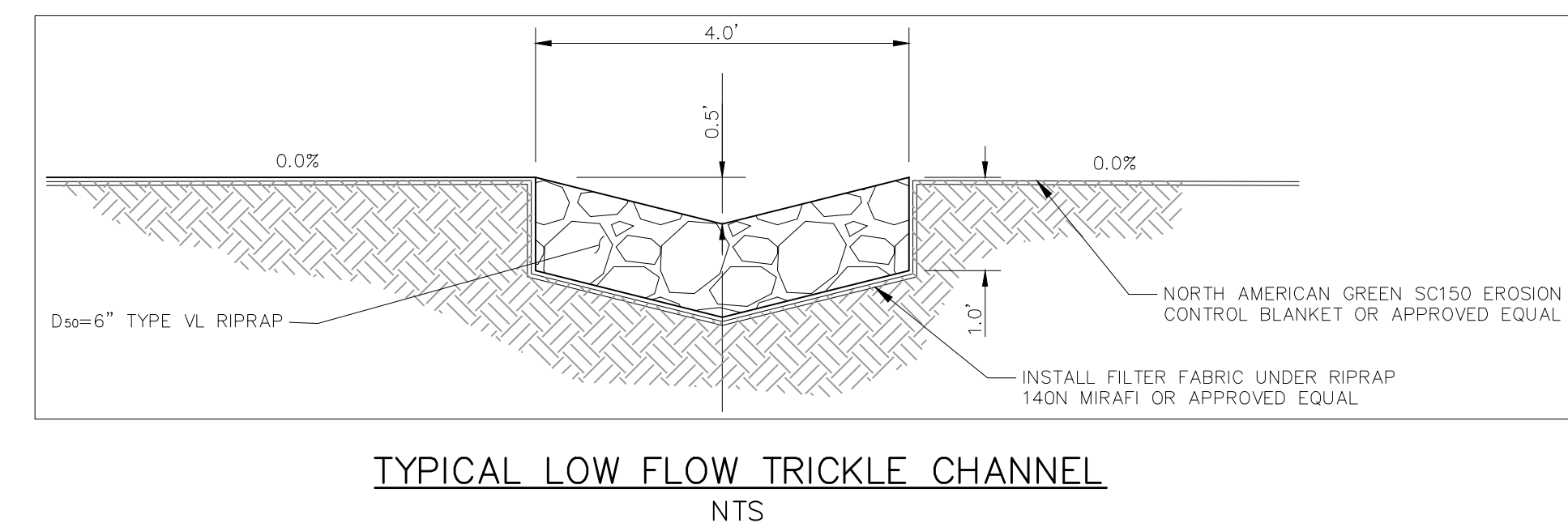
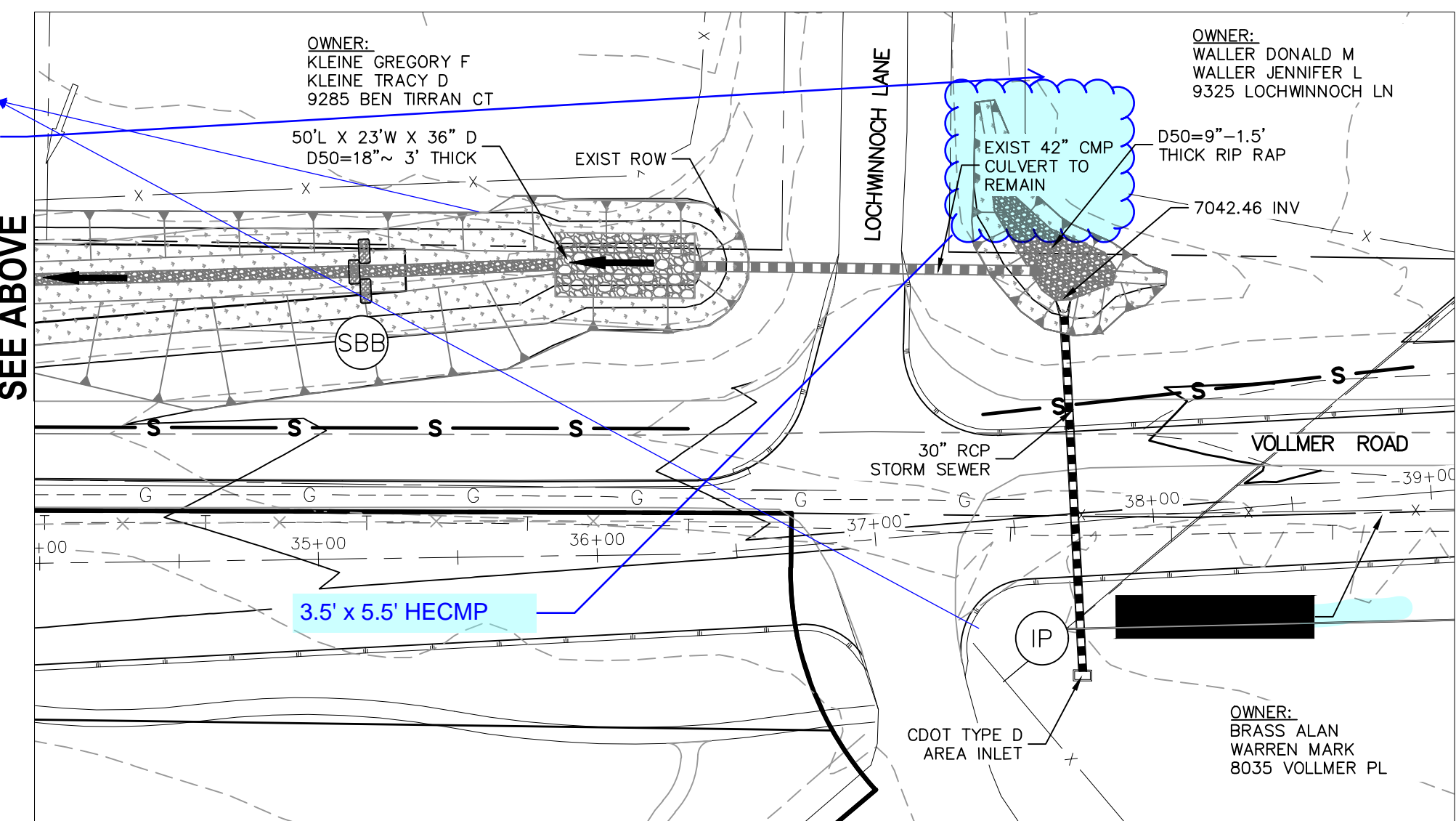
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 CALL 1-800-922-1987



OFFSITE DRAINAGE DITCH GRADING AND EROSION CONTROL PLAN
 SCALE: 1"=50'

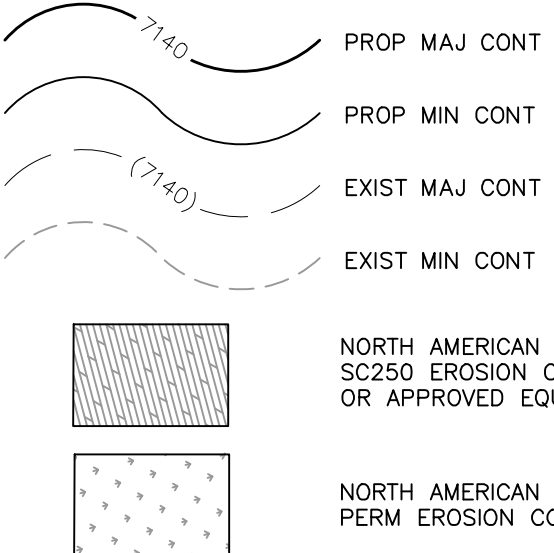


See comment on drainage report, Velocities exceed permissible limits in DCM 1 & 2 for a soft lined channel.



NOTES:
 OWNER/DEVELOPER TO COORDINATE WITH ADJACENT PROPERTY OWNERS TO DETERMINE ACCEPTABLE LOCATION FOR FENCE PRIOR TO CONSTRUCTION
 CONTRACTOR TO COORDINATE WITH MOUNTAIN VIEW ELECTRIC TO DETERMINE ACCEPTABLE RELOCATION OF OVERHEAD ELECTRIC LINES.
 SEE STERLING RANCH FILING NO 1 STREET IMPROVEMENT, & STORM SEWER PLANS FOR CONSTRUCTION DETAILS OF STREET, STORM SEWER AND DETENTION PONDS.

- TRAP. TRAPEZOIDAL
- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- ELECTRIC POLES
- ← 2.0% FLOW DIRECTION & SLOPE



- INLET PROTECTION (IP)
- STRAW BALE DITCH CHECK
- LOW FLOW CHANNEL
- EX. FLOW ARROW
- PROP. FLOW ARROW
- PROPERTY LINE
- PROP STORM SEWER PIPE
- LIMITS OF DISTURBANCE

STERLING RANCH FILING NO. 2
 OFFSITE DITCH GRADING & EROSION CONTROL
 PROJECT NO. 09-002
 DATE: 03/14/2018
 SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A
 DESIGNED BY: JWP
 DRAWN BY: JWP
 CHECKED BY: ET

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

 CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
 ARCH: A. SANCHEZ, COLORADO P.E. NO. 371760

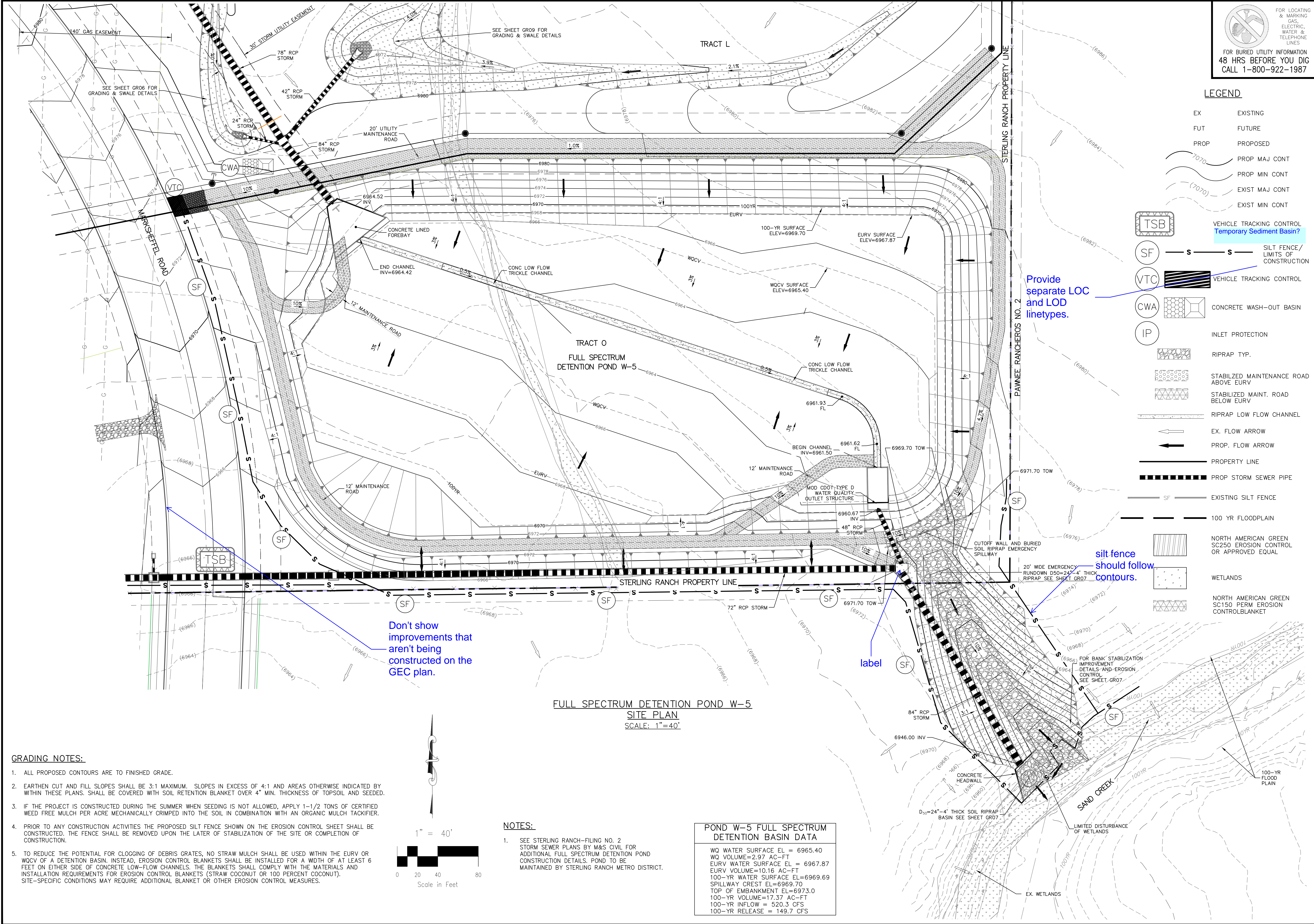
NO.	DATE	BY	DESCRIPTION

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CAUTION

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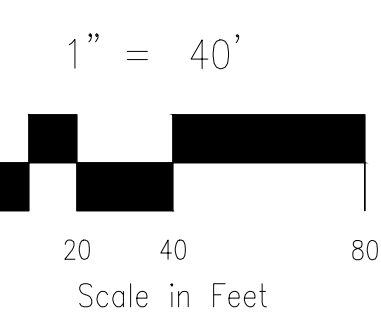
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987

LEGEND

EX	EXISTING
FUT	FUTURE
PROP	PROPOSED
(7070)	PROP MAJ CONT
(7070)	PROP MIN CONT
(7070)	EXIST MAJ CONT
(7070)	EXIST MIN CONT

TSB	VEHICLE TRACKING CONTROL Temporary Sediment Basin?
SF	SILT FENCE/ LIMITS OF CONSTRUCTION
VTC	VEHICLE TRACKING CONTROL
CWA	CONCRETE WASH-OUT BASIN
IP	INLET PROTECTION
[Symbol]	RIPRAP TYP.
[Symbol]	STABILIZED MAINTENANCE ROAD ABOVE EURV
[Symbol]	STABILIZED MAINT. ROAD BELOW EURV
[Symbol]	RIPRAP LOW FLOW CHANNEL
[Symbol]	EX. FLOW ARROW
[Symbol]	PROP. FLOW ARROW
[Symbol]	PROPERTY LINE
[Symbol]	PROP STORM SEWER PIPE
[Symbol]	EXISTING SILT FENCE
[Symbol]	100 YR FLOODPLAIN
[Symbol]	NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL
[Symbol]	WETLANDS
[Symbol]	NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET

- GRADING NOTES:**
- ALL PROPOSED CONTOURS ARE TO FINISHED GRADE.
 - EARTHEN CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM. SLOPES IN EXCESS OF 4:1 AND AREAS OTHERWISE INDICATED BY WITHIN THESE PLANS, SHALL BE COVERED WITH SOIL RETENTION BLANKET OVER 4" MIN. THICKNESS OF TOPSOIL AND SEEDED.
 - IF THE PROJECT IS CONSTRUCTED DURING THE SUMMER WHEN SEEDING IS NOT ALLOWED, APPLY 1-1/2 TONS OF CERTIFIED WEED FREE MULCH PER ACRE MECHANICALLY CRIMPED INTO THE SOIL IN COMBINATION WITH AN ORGANIC MULCH TACKIFIER.
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- NOTES:**
- SEE STERLING RANCH-FILING NO. 2 STORM SEWER PLANS BY M&S CIVIL FOR ADDITIONAL FULL SPECTRUM DETENTION POND CONSTRUCTION DETAILS. POND TO BE MAINTAINED BY STERLING RANCH METRO DISTRICT.

POND W-5 FULL SPECTRUM DETENTION BASIN DATA

WQ WATER SURFACE EL =	6965.40
WQ VOLUME=	2.97 AC-FT
EURV WATER SURFACE EL =	6967.87
EURV VOLUME=	10.16 AC-FT
100-YR WATER SURFACE EL=	6969.69
SPILLWAY CREST EL=	6969.70
TOP OF EMBANKMENT EL=	6973.0
100-YR VOLUME=	17.37 AC-FT
100-YR INFLOW =	520.3 CFS
100-YR RELEASE =	149.7 CFS

STERLING RANCH FILING NO. 2
FULL SPECTRUM DETENTION POND W-5 GEC

PROJECT NO. 09-002
DATE: 03/14/2018
SCALE: HORIZONTAL: 1"=40' VERTICAL: N/A
DESIGNED BY: ET
DRAWN BY: BB
CHECKED BY: ET

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

M&S CIVIL CONSULTANTS, INC.

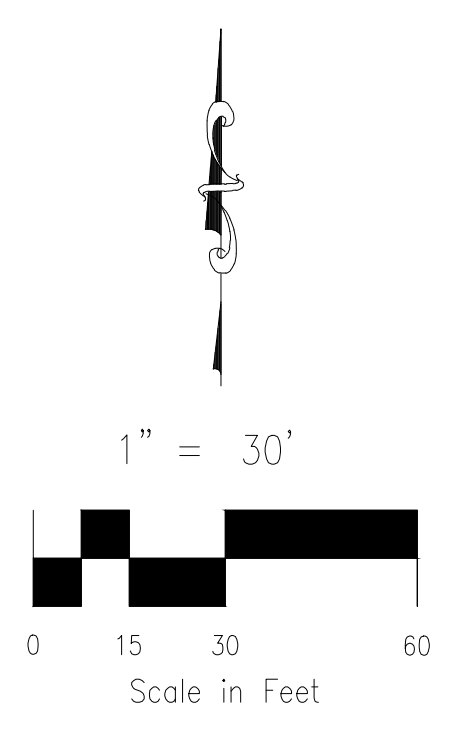
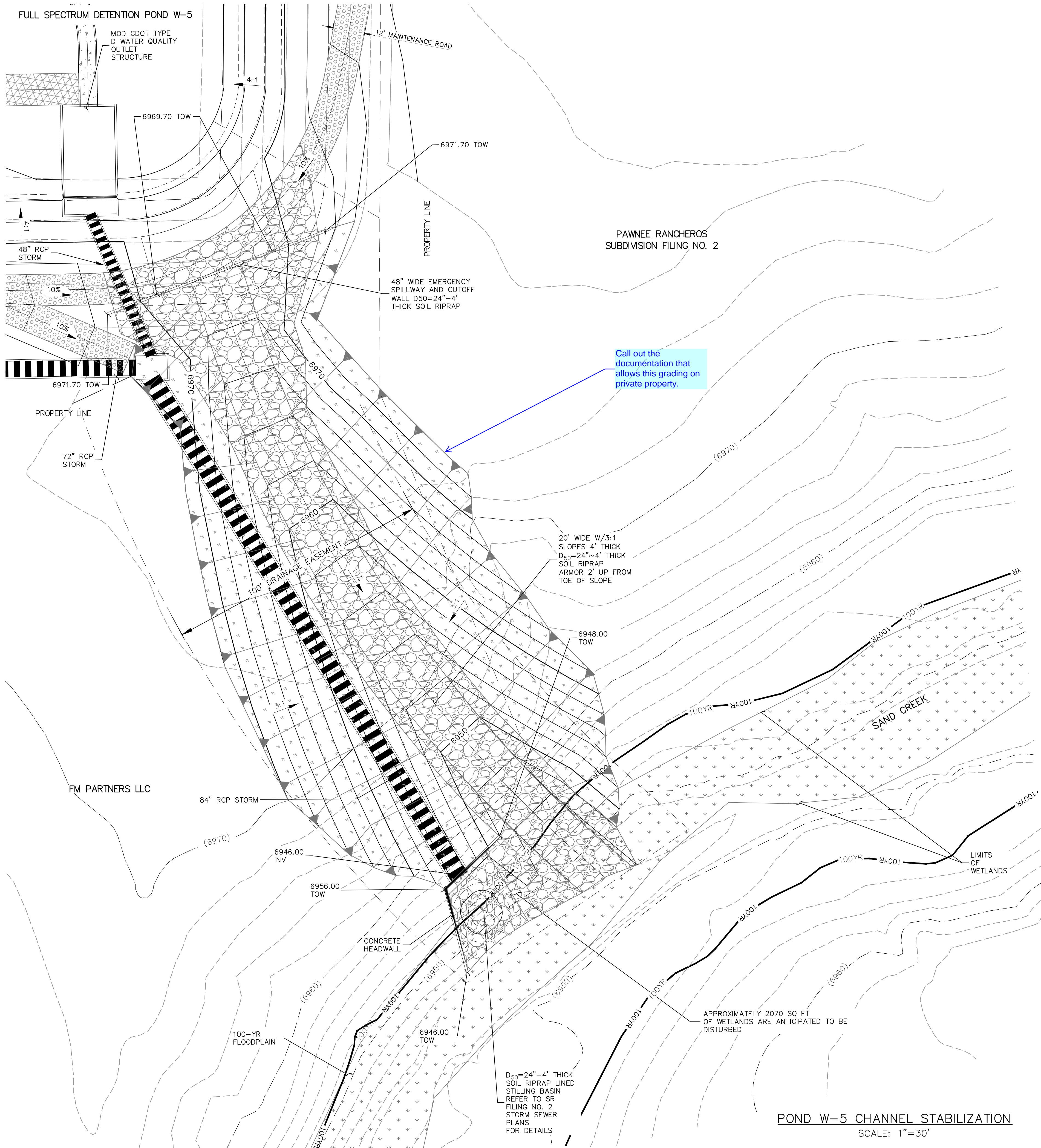
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

APPROVED BY: DATE: DESCRIPTION: NO. DATE: BY: NO. DATE: BY: NO. DATE: BY:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

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LEGEND

- | | | | |
|------|----------------|--|---|
| EX | EXISTING | | STABILIZED MAINTENANCE ROAD ABOVE EURL |
| FUT | FUTURE | | STABILIZED MAINT. ROAD BELOW EURL |
| PROP | PROPOSED | | RIPRAP LOW FLOW CHANNEL |
| | PROP MAJ CONT | | EX. FLOW ARROW |
| | PROP MIN CONT | | PROP. FLOW ARROW |
| | EXIST MAJ CONT | | PROPERTY LINE |
| | EXIST MIN CONT | | PROP STORM SEWER PIPE |
| | SF | | EXISTING SILT FENCE |
| | VTC | | 100 YR FLOODPLAIN |
| | CWA | | NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL |
| | IP | | WETLANDS |
| | RIPRAP TYP. | | NORTH AMERICAN GREEN SC150 PERM EROSION CONTROL BLANKET |
| | CD | | CHECK DAM
Include the detail for check dams similar to the other details on the last plan sheet. |

Call out the documentation that allows this grading on private property.

Include the detail for check dams similar to the other details on the last plan sheet.

NOTE:
SEE STERLING RANCH FILING NO. 2 STORM SEWERS PLANS MS CIVIL FOR ADDITIONAL CONSTRUCTION DETAILS

POND W-5 CHANNEL STABILIZATION
SCALE: 1" = 30'



STERLING RANCH FILING NO. 2	
POND W-5 RUNDOWN	
PROJECT NO. 09-002	DATE: 03/14/2018
DESIGNED BY: ET	HORIZONTAL SCALE: 1" = 30'
DRAWN BY: BB	VERTICAL SCALE: N/A
CHECKED BY: ET	SHEET 7 OF 12
GR07	

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

M&S CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.	VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37760
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REVISIONS:

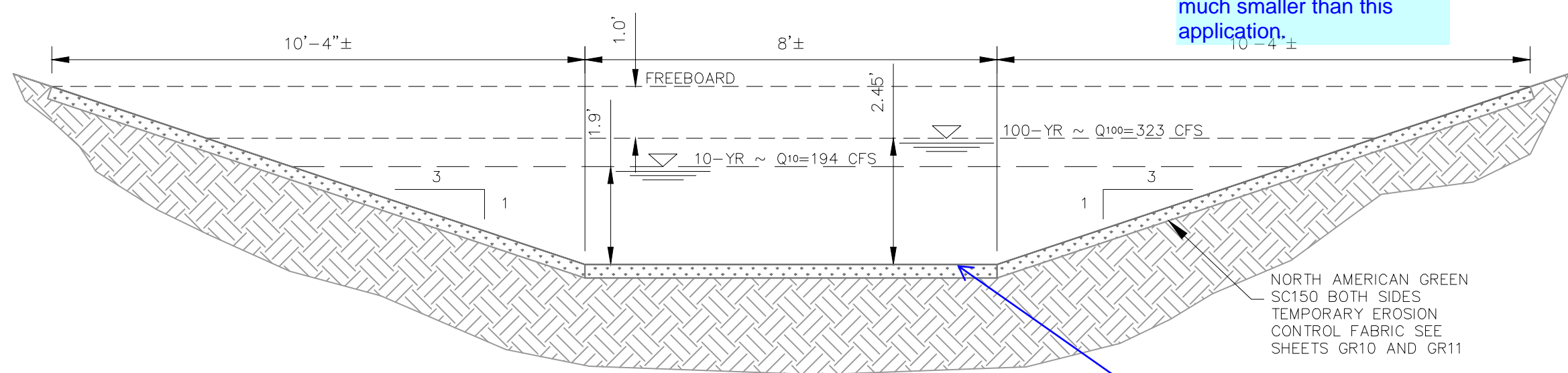
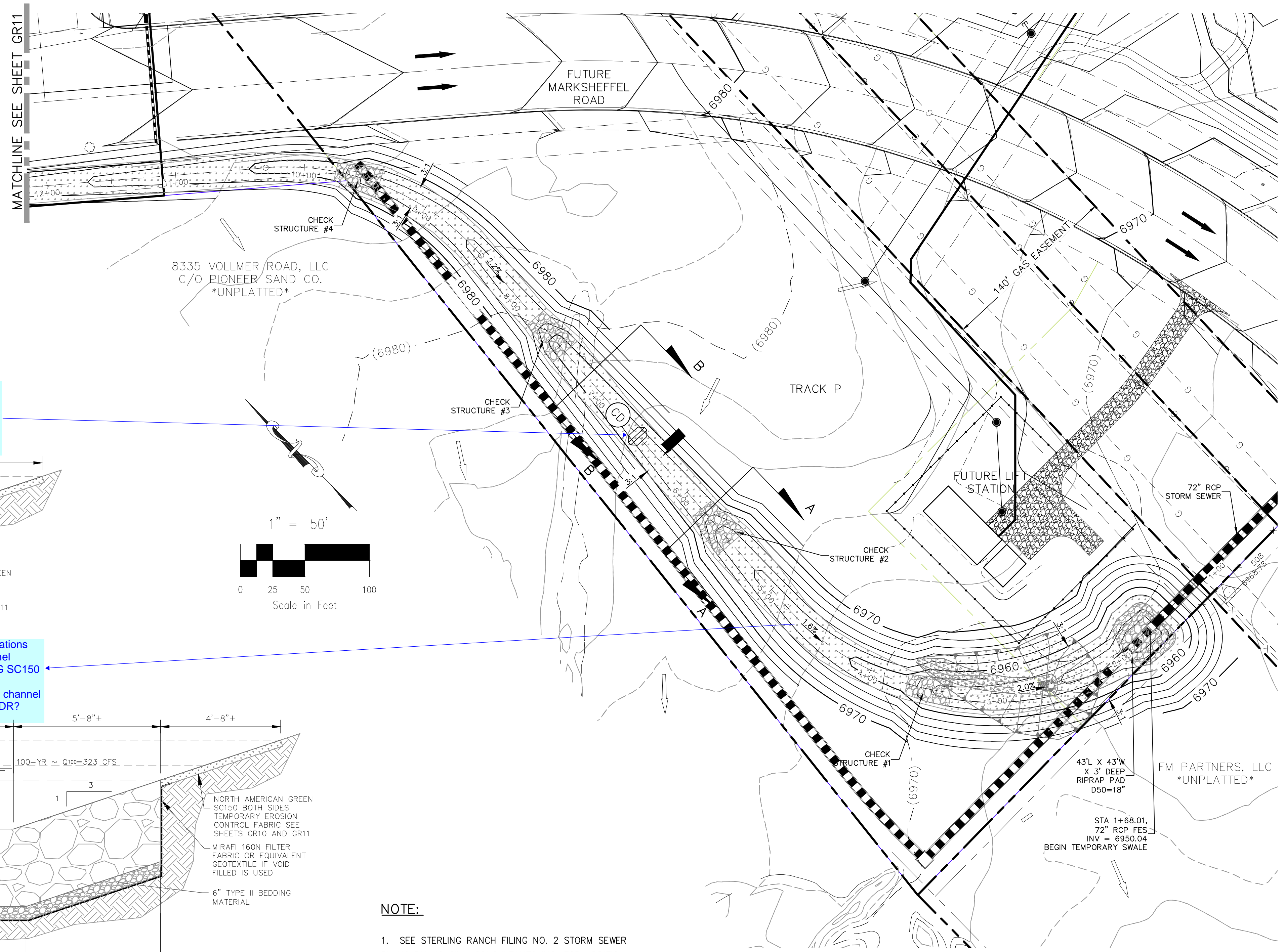
NO.	DATE	BY	DESCRIPTION

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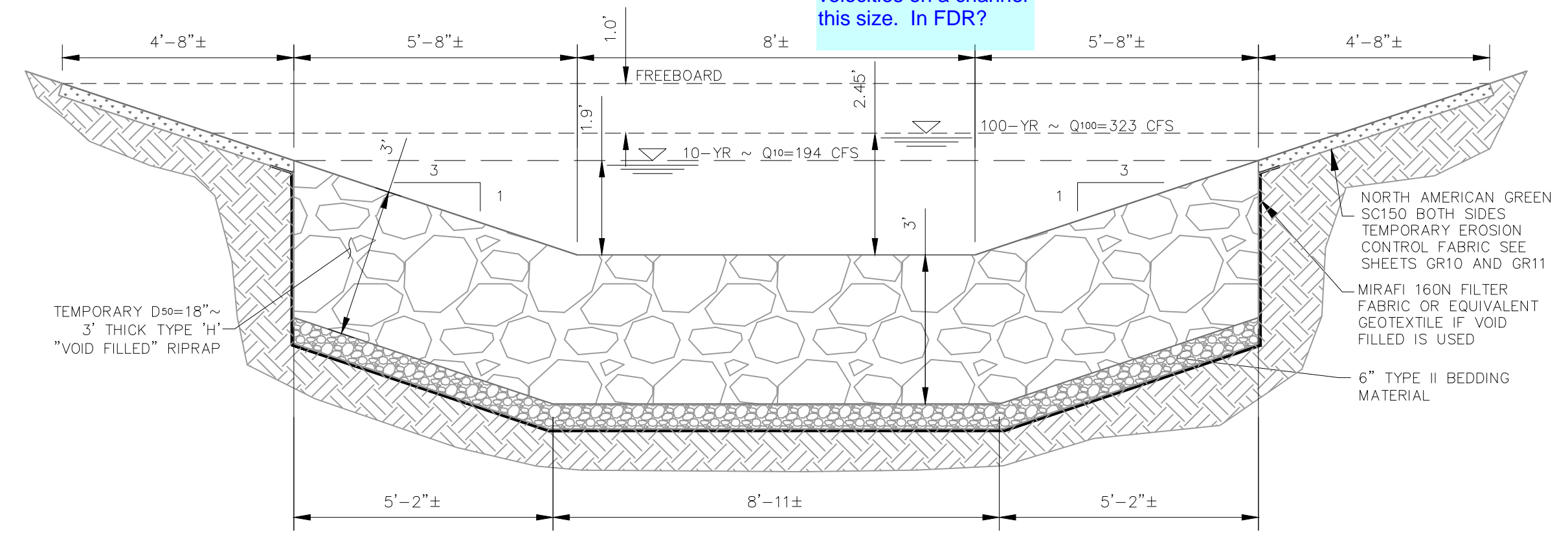
CAUTION

LEGEND

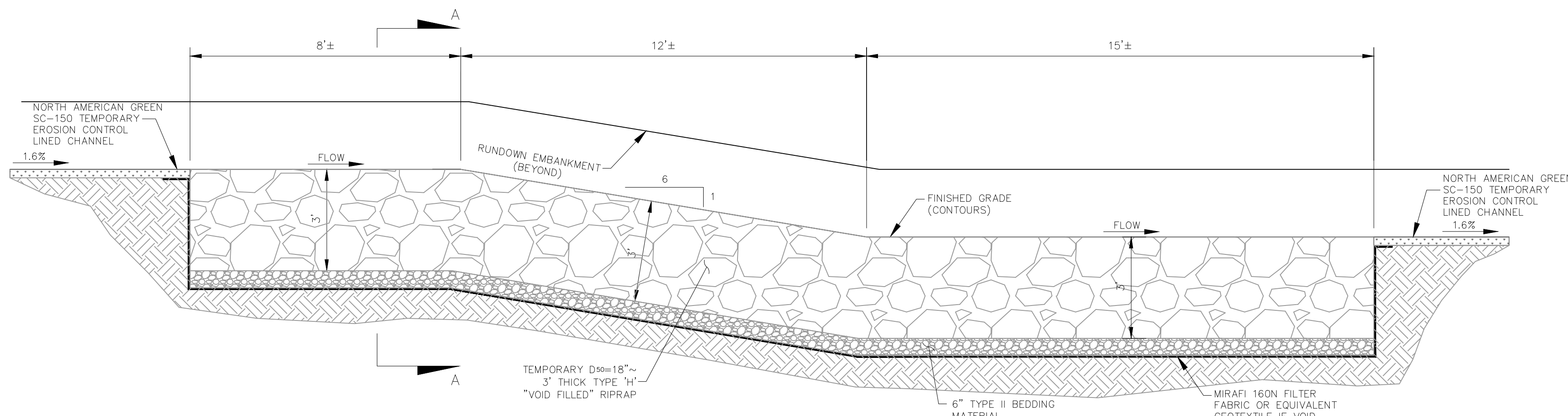
- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- PROF MAJ CONT
- PROF MIN CONT
- EXIST MAJ CONT
- EXIST MIN CONT
- SF S S SILT FENCE/LIMITS OF CONSTRUCTION
- VTC VEHICLE TRACKING CONTROL
- CWA CONCRETE WASH-OUT BASIN
- IP INLET PROTECTION
- RIPRAP TYP.
- STABILIZED MAINTENANCE ROAD ABOVE EURV
- STABILIZED MAINT. ROAD BELOW EURV
- RIPRAP LOW FLOW CHANNEL
- EX. FLOW ARROW
- PROP. FLOW ARROW
- PROPERTY LINE
- PROP STORM SEWER PIPE
- EXISTING SILT FENCE
- 100 YR FLOODPLAIN
- NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL
- WETLANDS
- NORTH AMERICAN GREEN SC150 PERM EROSION CONTROL BLANKET
- CHECK DAM



TEMPORARY SWALE SECTION B-B
N.T.S.



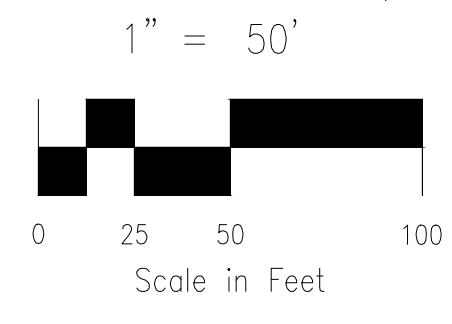
SECTION A-A ELEVATION
N.T.S.



TEMPORARY CHECK STRUCTURE ELEVATION
N.T.S.

please review the requirements of check dams, they should be used for 1 to 10 acre basin flows, much smaller than this application.

Provide calculations that this channel treatment NAG SC150 will handle the velocities on a channel this size. In FDR?



NOTE:

- SEE STERLING RANCH FILING NO. 2 STORM SEWER PLANS BY MS CIVIL CONSULTANTS INC. FOR ADDITIONAL CONSTRUCTION DETAILS.
- SEE THIS SHEET FOR CHECK STRUCTURE AND INFLOW DETAILS.

STATION	ELEVATION	STRUCTURE
1+68.01	6950.04	INFLOW 72" FES INV
1+96.26	6952.00	INFLOW RIPRAP EL
3+35.10	6955.99	CHECK STRUCTURE #1 EL
3+50.10	6956.00	CHECK STRUCTURE #1 EL
3+61.91	6958.00	CHECK STRUCTURE #1 EL
3+69.91	6958.37	CHECK STRUCTURE #1 EL
5+47.52	6963.30	CHECK STRUCTURE #2 EL
5+62.52	6964.00	CHECK STRUCTURE #2 EL
5+74.47	6966.00	CHECK STRUCTURE #2 EL
5+81.00	6966.14	CHECK STRUCTURE #2 EL
7+43.95	6969.57	CHECK STRUCTURE #3 EL
7+58.95	6970.00	CHECK STRUCTURE #3 EL
7+70.95	6972.00	CHECK STRUCTURE #3 EL
7+78.95	6972.18	CHECK STRUCTURE #3 EL
9+40.37	6975.99	CHECK STRUCTURE #4 EL
9+55.37	6976.00	CHECK STRUCTURE #4 EL
9+67.37	6978.00	CHECK STRUCTURE #4 EL
9+75.37	6978.33	CHECK STRUCTURE #4 EL
16+38.83	6989.72	CHECK STRUCTURE #5 EL
16+53.83	6990.00	CHECK STRUCTURE #5 EL
16+66.45	6992.00	CHECK STRUCTURE #5 EL
16+75.45	6992.49	CHECK STRUCTURE #5 EL
21+69.38	6999.99	CHECK STRUCTURE #6 EL
21+84.38	7000.00	CHECK STRUCTURE #6 EL
21+98.01	7002.00	CHECK STRUCTURE #6 EL
22+06.01	7002.47	CHECK STRUCTURE #6 EL
24+19.48	7006.00	RIPRAP BASIN OUTFALL EL
24+24.48	7006.00	RIPRAP BASIN OUTFALL EL
24+30.48	7004.00	RIPRAP BASIN OUTFALL EL
24+39.49	7004.00	RIPRAP BASIN OUTFALL EL
24+48.50	7007.00	RIPRAP BASIN OUTFALL EL
24+51.50	7007.09	*OUTFALL 66" FES INV

*DESIGN OUTFALL RIPRAP BASIN PER FIGURE 9-37. LOW TAILWATER RIPRAP BASIN (UDFCD 9-74)



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CALL 1-800-922-1987

STERLING RANCH FILING NO. 2

TEMP. GRADING & EROSION CONTROL PLAN

PROJECT NO. 09-002 DATE: 03/14/2018

DESIGNED BY: GT DRAWN BY: ET CHECKED BY: VAS

HORIZONTAL SCALE: 1"=50' VERTICAL SCALE: NA

20 BOULDER CRESCENT SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.4485

MS CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

APPROVED BY: _____ DATE: _____

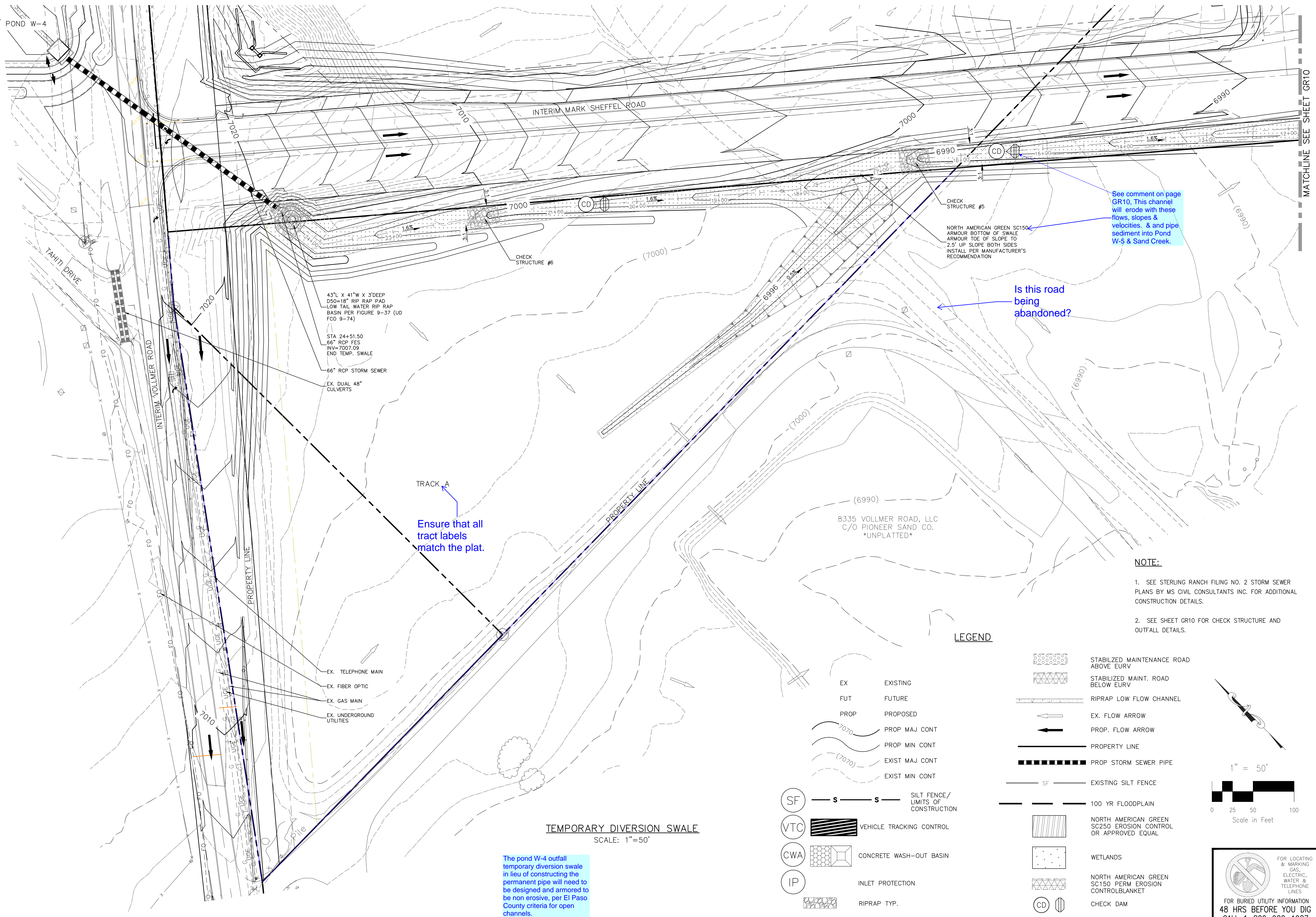
BY: _____ DESCRIPTION: _____

NO. _____ DATE: _____

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CAUTION

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43'L X 41'W X 3'DEEP
D50=18" RIP RAP PAD
LOW TAIL WATER RIP RAP
BASIN PER FIGURE 9-37 (UD
FCO 9-74)

STA 24+51.50
66" RCP FES
INV=7007.09
END TEMP. SWALE

66" RCP STORM SEWER
EX. DUAL 48"
CULVERTS

TRACK A
Ensure that all
tract labels
match the plat.

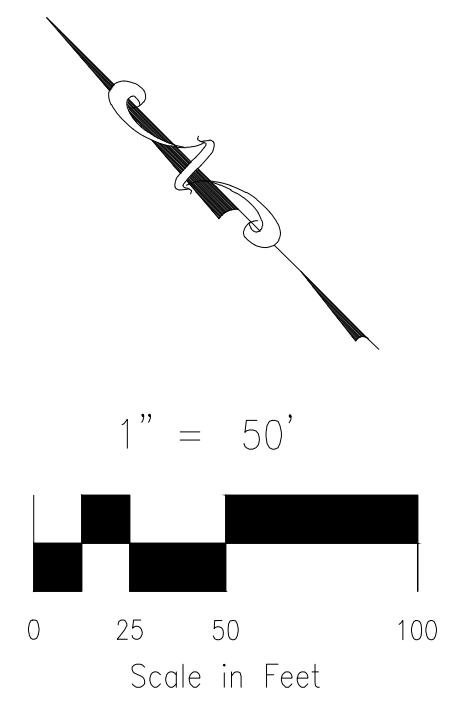
See comment on page
GR10. This channel
will erode with these
flows, slopes &
velocities. & and pipe
sediment into Pond
W-5 & Sand Creek.

Is this road
being
abandoned?

LEGEND

- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- PROP MAJ CONT
- PROP MIN CONT
- EXIST MAJ CONT
- EXIST MIN CONT
- SF S S SILT FENCE/
LIMITS OF
CONSTRUCTION
- VTC VTC VEHICLE TRACKING CONTROL
- CWA CWA CONCRETE WASH-OUT BASIN
- IP IP INLET PROTECTION
- RIPRAP TYP.

- STABILIZED MAINTENANCE ROAD
ABOVE EURV
- STABILIZED MAINT. ROAD
BELOW EURV
- RIPRAP LOW FLOW CHANNEL
- EX. FLOW ARROW
- PROP. FLOW ARROW
- PROPERTY LINE
- PROP STORM SEWER PIPE
- EXISTING SILT FENCE
- 100 YR FLOODPLAIN
- NORTH AMERICAN GREEN
SC250 EROSION CONTROL
OR APPROVED EQUAL
- WETLANDS
- NORTH AMERICAN GREEN
SC150 PERM EROSION
CONTROL/BLANKET
- CD CHECK DAM



TEMPORARY DIVERSION SWALE
SCALE: 1"=50'

The pond W-4 outfall
temporary diversion swale
in lieu of constructing the
permanent pipe will need to be
designed and armored to
be non erosive, per El Paso
County criteria for open
channels.

NOTE:

1. SEE STERLING RANCH FILING NO. 2 STORM SEWER PLANS BY MS CIVIL CONSULTANTS INC. FOR ADDITIONAL CONSTRUCTION DETAILS.
2. SEE SHEET GR10 FOR CHECK STRUCTURE AND OUTFALL DETAILS.

MATCHLINE SEE SHEET GR10

STERLING RANCH FILING NO. 2	
TEMP. GRADING & EROSION CONTROL PLAN	
PROJECT NO. 09-002	DATE: 03/14/2018
DESIGNED BY: GT	SCALE: HORIZONTAL: 1"=50' VERTICAL: VAS
DRAWN BY: EY	CHECKED BY: VAS
SHEET 11 OF 12	
GR11	

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.4485

MS&S
CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF MS&S CIVIL CONSULTANTS, INC.

MARCEL A. SANCHEZ, COLORADO P.E. NO. 377160

NO.	REVISIONS:	DATE:	APPROVED BY:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES

FOR BURIED UTILITY INFORMATION
48 HRS BEFORE YOU DIG
CALL 1-800-922-1987

CAUTION

