

WILLOW SPRINGS RANCH

TOWN OF MONUMENT, COLORADO

EROSION CONTROL AND STORMWATER QUALITY CONTROL PLAN

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GRADING, EROSION AND STORMWATER QUALITY NOTES

1. ANY LAND DISTURBANCE BY ANY OWNER, DEVELOPER, BUILDER, CONTRACTOR, OR OTHER PERSON SHALL COMPLY WITH THE BASIC GRADING, EROSION AND STORMWATER QUALITY CONTROL REQUIREMENTS AND GENERAL PROHIBITIONS NOTED IN THE DRAINAGE CRITERIA MANUAL VOLUME 2.
2. NO CLEARING, GRADING, EXCAVATION, FILLING OR OTHER LAND DISTURBING ACTIVITIES SHALL BE PERMITTED UNTIL SIGN OFF AND ACCEPTANCE OF THE GRADING PLAN AND EROSION AND STORMWATER CONTROL PLAN IS RECEIVED FROM EDRD.
3. THE INSTALLATION OF THE FIRST LEVEL OF TEMPORARY EROSION CONTROL FACILITIES AND BMP'S SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY EARTH DISTURBANCE OPERATIONS TAKING PLACE. CALL CITY STORMWATER INSPECTIONS, 385-5977 48 HOURS PRIOR TO CONSTRUCTION.
4. SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED IMMEDIATELY.
5. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (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 THIRTY (30) DAYS SHALL ALSO BE MULCHED WITHIN TWENTY-ONE (21) DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
7. THE GRADING AND EROSION CONTROL PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY EDRD SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE CITY ENGINEER'S ACCEPTANCE OF THE PLAN, A CHANGE IN PROPERTY OWNERSHIP, PROPOSED DEVELOPMENT CHANGES, OR PROPOSED GRADING REVISIONS.
8. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS EXISTING UTILITY LINES. ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE IN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO GRADE WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY COLORADO SPRINGS UTILITIES EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT THEIR WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS IS AT THE APPLICANT'S EXPENSE.
9. SEE NOTES IN SECTION 3.2 OF THE DRAINAGE CRITERIA MANUAL VOL. 2.
10. ALL UTILITY INSTALLATIONS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE COVERED UNDER THIS PLAN. LOCATIONS OF UTILITIES WITHIN THE LIMITS OF DISTURBANCE MAY BE MODIFIED AFTER PLAN APPROVAL AS A FIELD CHANGE. UTILITY INSTALLATIONS RELATED TO THE PRIVATE DEVELOPMENT THAT EXTEND BEYOND THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE CONSIDERED TO BE PART OF THE LARGER DEVELOPMENT, AND THEREFORE REQUIRE A PLAN MODIFICATION OR SEPARATE PLAN FOR THE ADDITIONAL DISTURBANCE AREA.

TIMING

ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING
 START: SPRING OF 2020
 FINISH: SUMMER 2020

EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:

AREAS

TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED:
 APPROXIMATELY 112 ACRES.

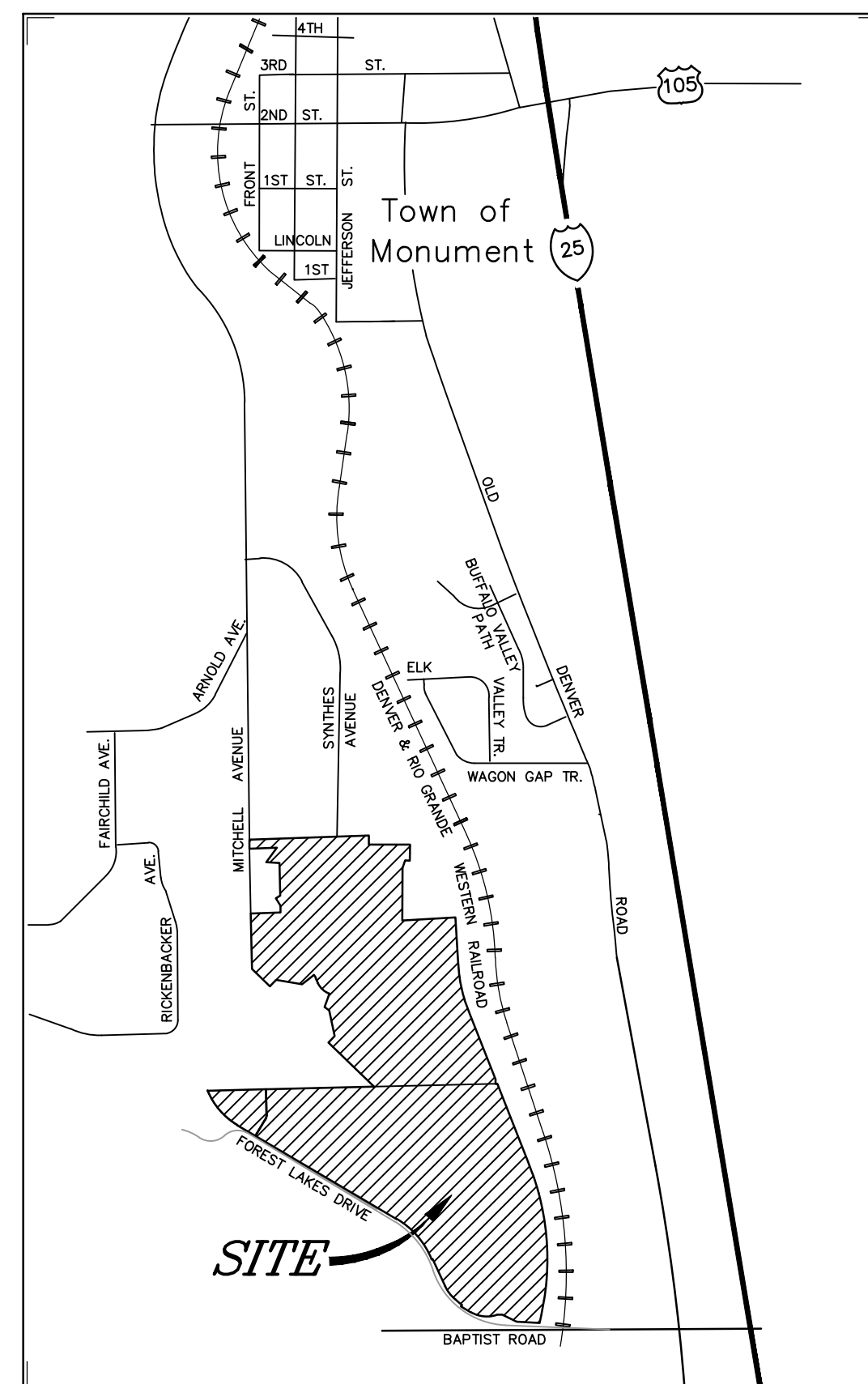
RECEIVING WATERS

NAME OF RECEIVING WATERS: TEACHOUT CREEK, MONUMENT CREEK.

Soil Type	Hydrologic Soil Group	Percent of site
Tomah--Crowfoot loamy sands	B	56.9%
Pring coarse sandy loam	B	31.1%
Jarre--Tecalote complex	B	6.8%
Alamosa loam	D	1.9%
Ustic Torrifluvents	B	1.8%
Tomah--Crowfoot complex	B	1.5%

ESTIMATED COST OF TEMPORARY AND PERMANENT BMP'S INCLUDING INSTALLATION AND MAINTENANCE UNTIL FINAL STABILIZATION IS:

NO.	ITEM	UNIT	AVERAGE UNIT PRICE	QUANTITY	TOTAL
1	SILT FENCING	LF	\$2.50	21,975	\$54,937.50
2	INLET PROTECTION	EA	\$150.00	30	\$4,500.00
3	OUTLET PROTECTION	EA	\$150.00	9	\$1,350.00
4	CHECK DAM	EA	\$40.00	0	\$0.00
5	ROCK SOCK	EA	\$110.00	2	\$220.00
6	EROSION CONTROL BLANKET	SF	\$0.25	0	\$0.00
7	CONCRETE WASHOUT	EA	\$760.00	1	\$760.00
8	VEHICLE TRACKING CONTROL	EA	\$1,325.00	3	\$3,975.00
9	SEEDING/MULCH - Disturbed Area	AC	\$1,200.00	112	\$134,400.00
	SUBTOTAL				\$200,142.50
	MAINTENANCE OF BMPs		40%		\$80,057.00
	BMP TOTAL				\$280,199.50



Vicinity Map

Not to Scale

FLOODPLAIN STATEMENT

THE PROPERTY IS INDICATED AS BEING LOCATED IN ZONE "AE" ON THE NFIP FLOOD INSURANCE RATE MAP FOR UNINCORPORATED EL PASO COUNTY, COLORADO, PANEL NUMBER'S 08041C0278G AND 08041C0278G, BOTH DATED DECEMBER 07, 2018 AND ON THE LETTER OF MAP REVISION TO PANEL NUMBER'S 08041C0278G AND 08041C0278G, CASE NUMBER 16-08-1035R HAVING AN EFFECTIVE DATE OF APRIL 18, 2019. ZONE "AE" IS DESCRIBED AS THOSE AREAS FOR WHICH BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

BENCHMARK:

PROJECT BENCHMARK:

A #5 REBAR WITH A 2" ALUMINUM CAP STAMPED "D.B. & CO." / "CONTROL POINT". POINT IS LOCATED 610 FEET +/- EAST OF THE EAST EDGE OF ASPHALT OF MITCHELL ROAD, 390 FEET +/- SOUTHWESTERLY OF THE CENTER OF THE CUL-DE-SAC AT THE SOUTH END OF SYNTHES ROAD AND 25 FEET SOUTH OF A SPLIT RAIL FENCE AT THE SOUTHERLY BOUNDARY OF THE SYNTHES USA PROPERTY.

ELEVATION = 6880.06. VERTICAL DATUM - NAVD88.

ENGINEER'S STATEMENT

THIS EROSION CONTROL/GRADING PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE, OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

REGISTERED ENGINEER'S SIGNATURE:

NAME OF REGISTERED ENGINEER: TIM D. MCCONNELL, P.E. LICENSE NUMBER & SEAL _____
 COMPANY: DREXEL BARRELL & CO. PHONE: 719-260-0887
 ADDRESS: 3 S. 7TH ST. COLORADO SPRINGS, CO 80905 FAX: 719-260-8352
 EMAIL: TMCCONNELL@DREXELBARRELL.COM

DEVELOPER'S/OWNER'S STATEMENT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE EROSION AND STORMWATER QUALITY CONTROL PLAN INCLUDING TEMPORARY BMP INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

DEVELOPER/OWNER SIGNATURE:

NAME OF DEVELOPER/OWNER: DANIEL BROWN DATE: _____
 DBA: POLO BROWN COMPANY PHONE: (303) 999-5533
 TITLE: MANAGING MEMBER EMAIL: polobrown1@aol.com
 ADDRESS: 514 PIKE AVENUE
CANON CITY, CO 81212

TOWN OF MONUMENT GRADING AND EROSION CONTROL REVIEW

THIS GRADING PLAN IS FILED IN ACCORDANCE WITH TOWN OF MONUMENT GRADING AND EROSION CONTROL STANDARDS.

FOR THE CITY ENGINEER _____ DATE: _____

NOTES: _____

PREPARED BY:

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CONSTRUCTION DOCUMENTS FOR:

WILLOW SPRINGS RANCH
 BAPTIST ROAD & FOREST LAKES DRIVE
 MONUMENT, COLORADO

ISSUE	DATE
INITIAL ISSUE	3-12-2020
LATEST ISSUE	

DESIGNED BY:	KGV
DRAWN BY:	GES
CHECKED BY:	TDM
FILE NAME:	20876-05CV01

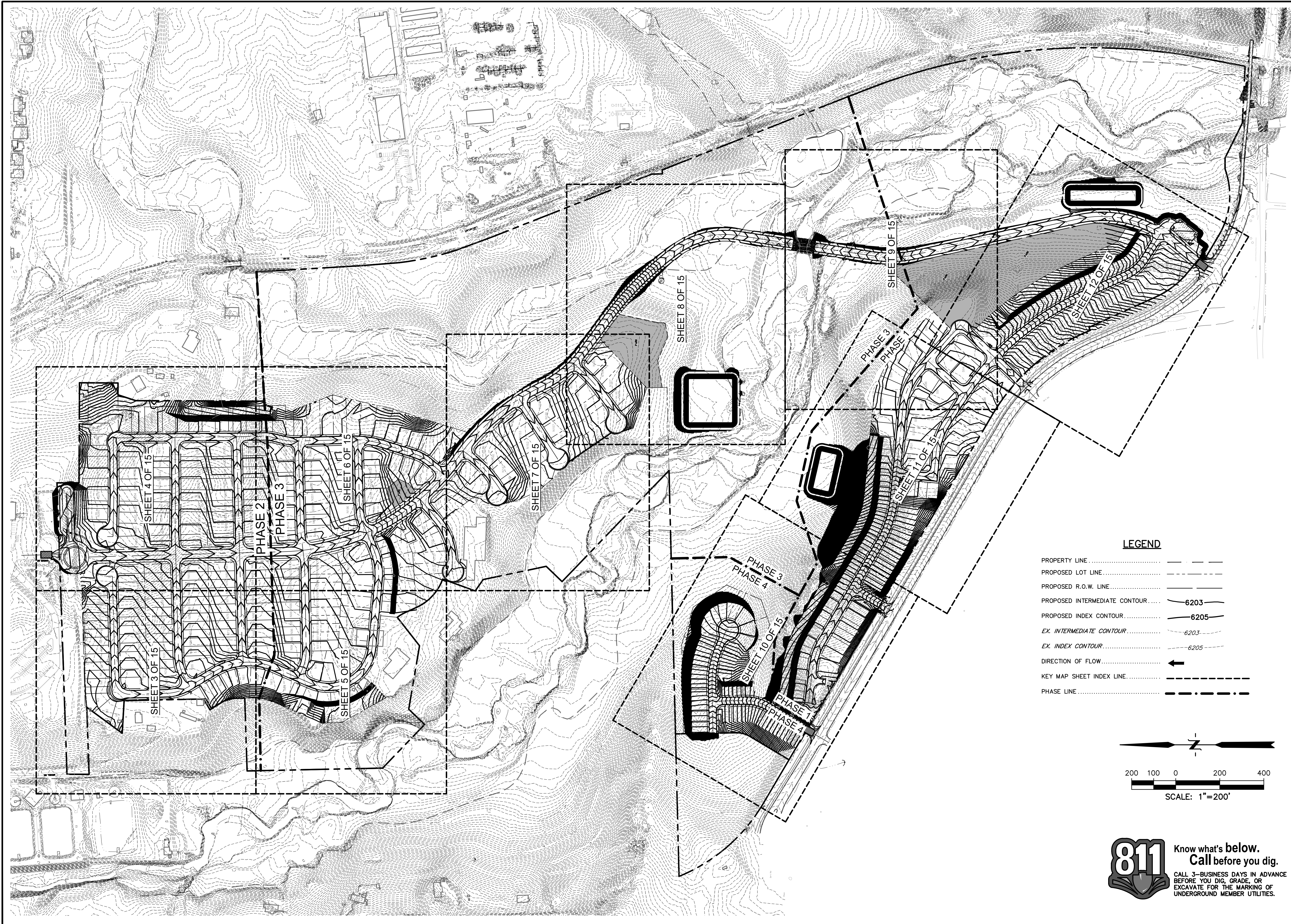
DRAWING SCALE:
 HORIZONTAL: N/A
 VERTICAL: N/A

EROSION
 CONTROL
 COVER SHEET

PROJECT NO. 20876-05CSCV
 DRAWING NO.

EC-1

SHEET: 1 OF 15



PREPARED BY:



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BAPTIST ROAD & FOREST LAKES DRIVE
MONUMENT, COLORADO

ISSUE	DATE
INITIAL ISSUE	3-12-2020
LATEST ISSUE	

DESIGNED BY:	TDM
DRAWN BY:	GES
CHECKED BY:	TDM
FILE NAME:	20876-05EC01

DRAWING SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: N/A

**OVERALL
KEY MAP &
PHASE LINES**

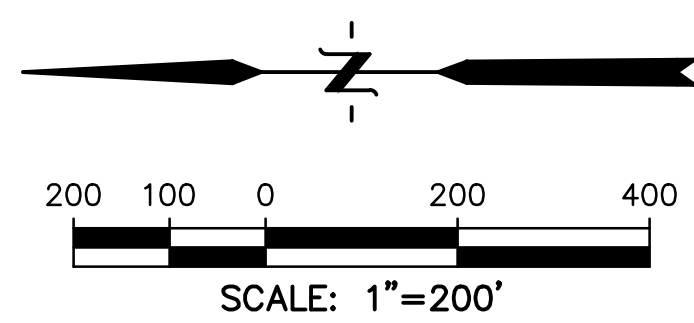
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DRAWING NO.

EC01

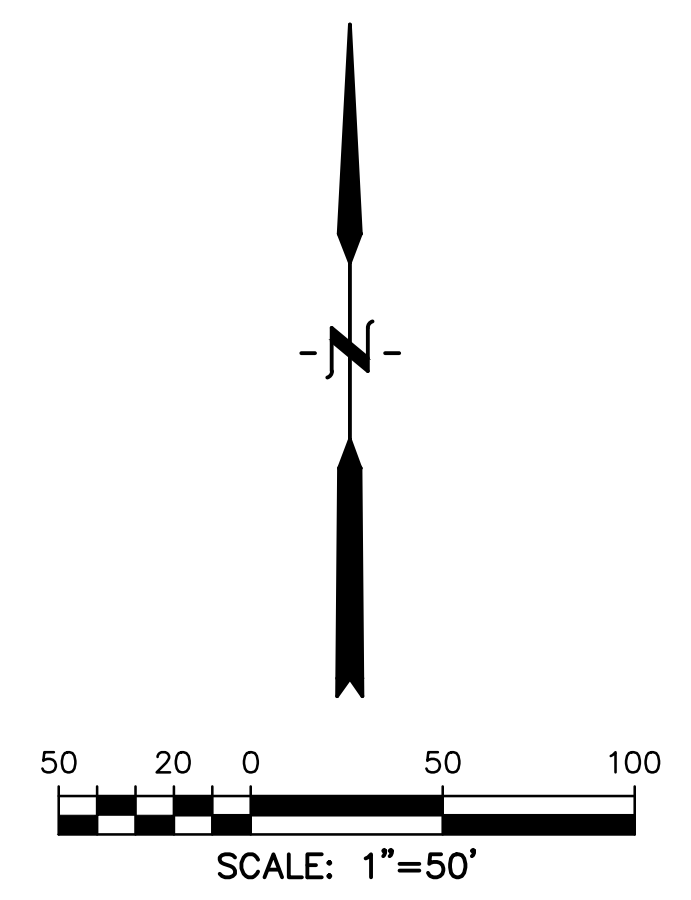
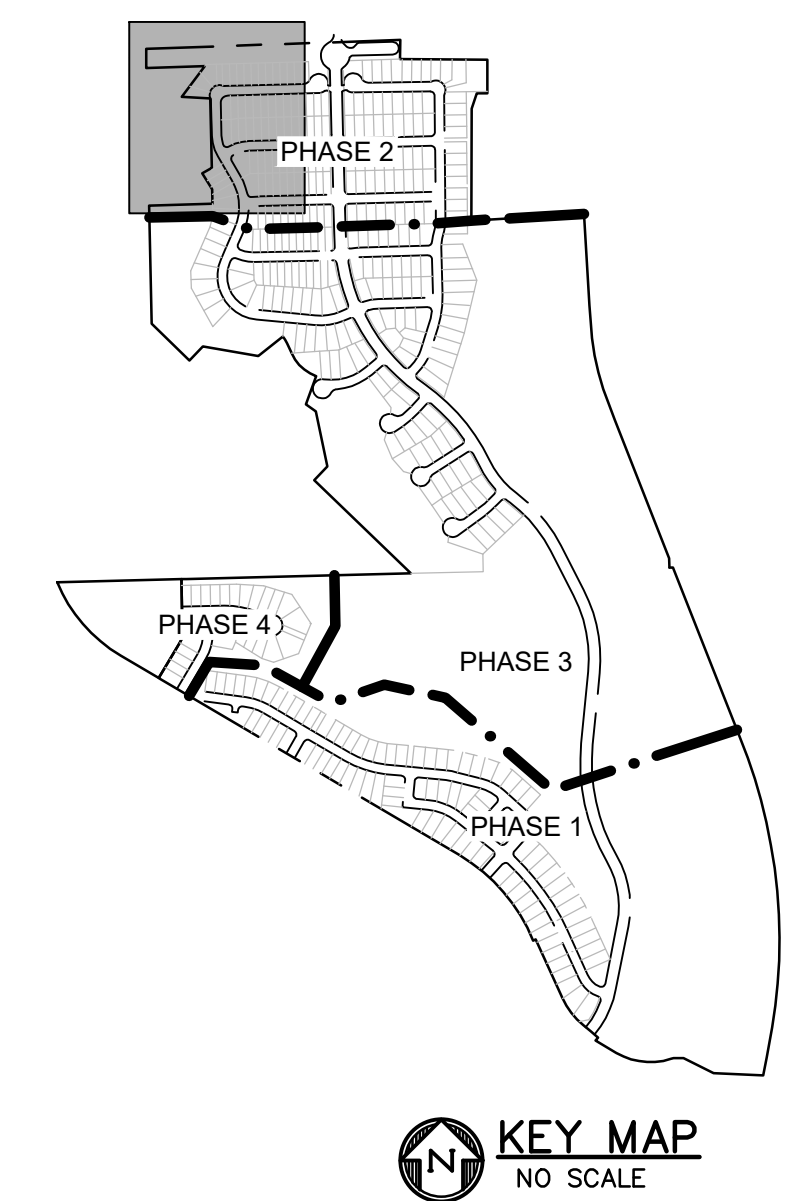
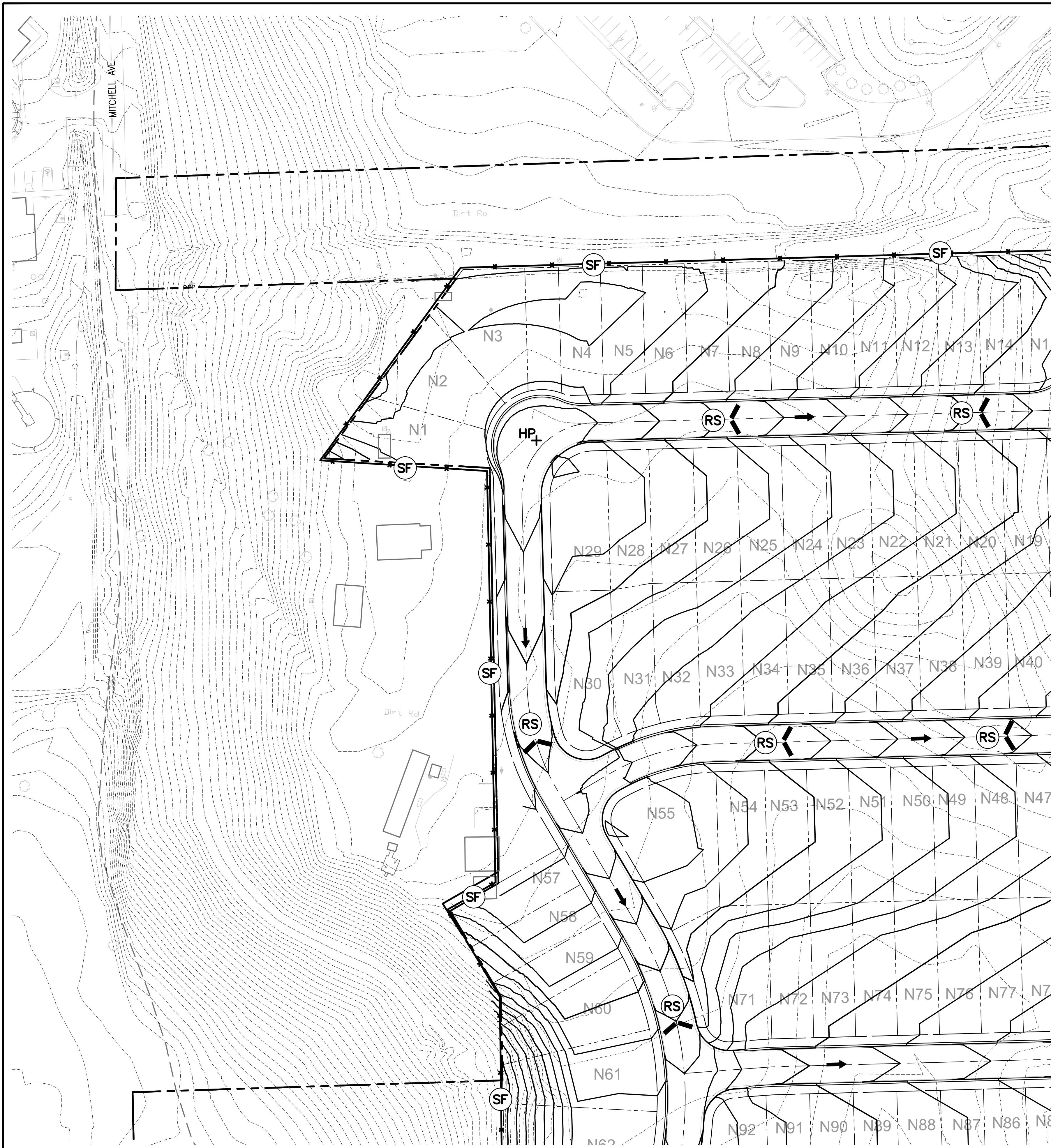
SHEET: 2 OF 15

LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	- - - - -
PROPOSED R.O.W. LINE	---
PROPOSED INTERMEDIATE CONTOUR	—6203—
PROPOSED INDEX CONTOUR	—6205—
EX. INTERMEDIATE CONTOUR	- -6203- -
EX. INDEX CONTOUR	- -6205- -
DIRECTION OF FLOW	←
KEY MAP SHEET INDEX LINE	---
PHASE LINE	- - - - -



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CALL 3-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.




LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	- - - -
PROPOSED R.O.W. LINE	—+—+—
PROPOSED INTERMEDIATE CONTOUR	—6203—
PROPOSED INDEX CONTOUR	—6205—
EX. INTERMEDIATE CONTOUR	- - -6203-
EX. INDEX CONTOUR	- - -6205-
DIRECTION OF FLOW	→
PROPOSED STORM SEWER	—+—+—
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	■
HIGH POINT	HP+
LOW POINT	LP+
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB
INLET PROTECTION (SEE DETAIL SHEET X)	IP
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB
SILT FENCE (SEE DETAIL SHEET X)	SF
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW
ROCK SOCKS (SEE DETAIL SHEET X)	RS
LIMIT OF DISTURBANCE	—+—+—
CUT/FILL LINE	—+—+—

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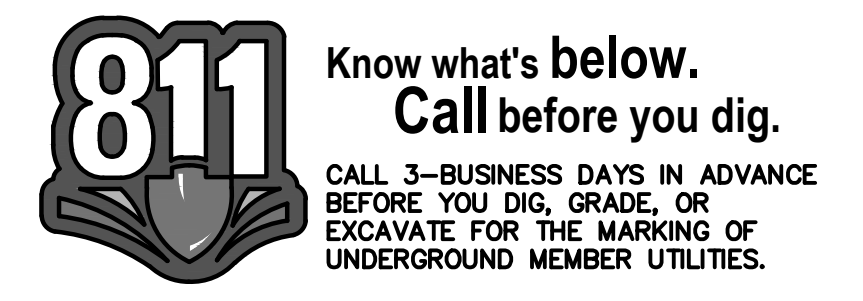
CONSTRUCTION DOCUMENTS FOR:
WILLOW SPRINGS RANCH
 BAPTIST ROAD & FOREST LAKES DRIVE
 MONUMENT, COLORADO

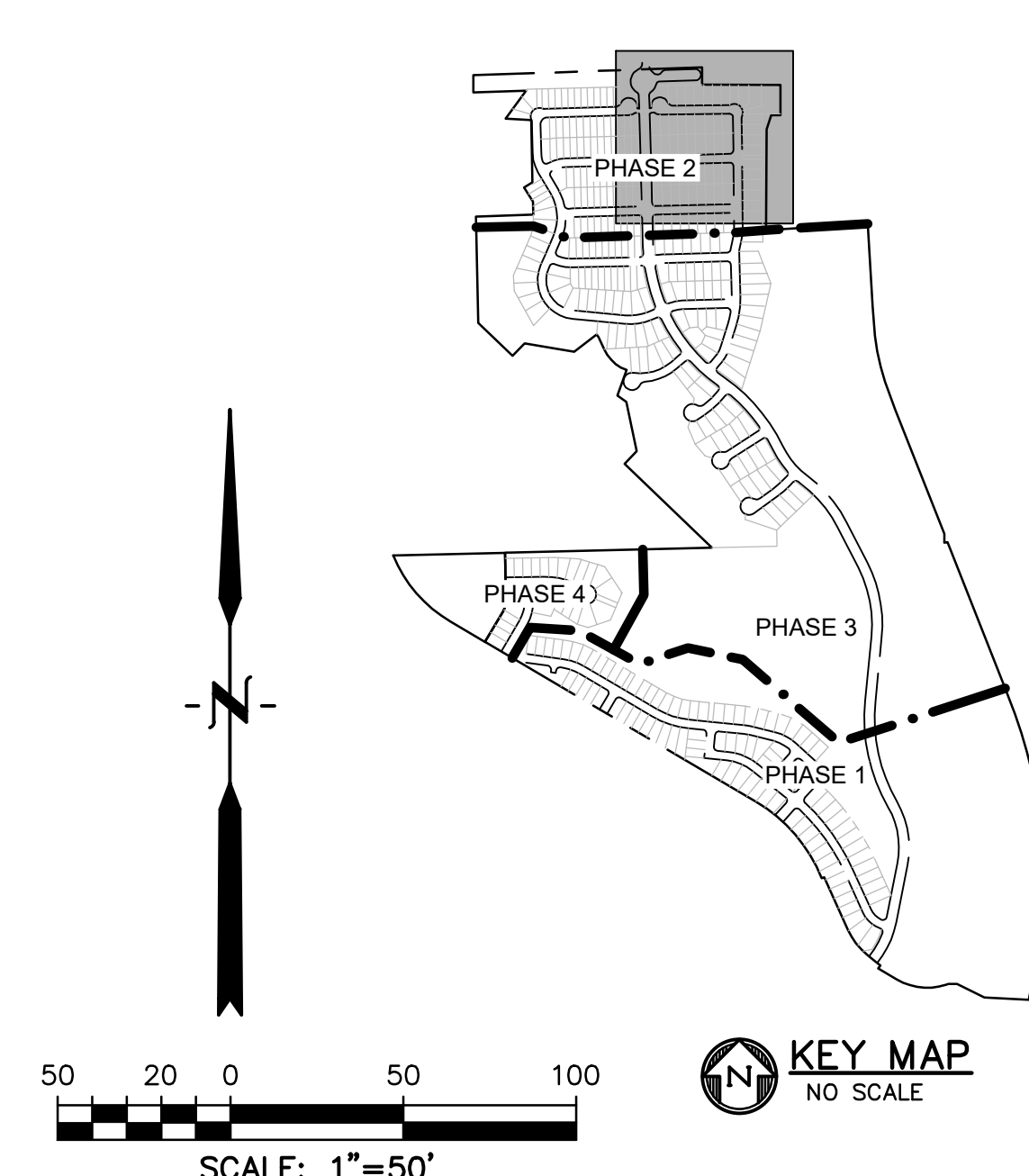
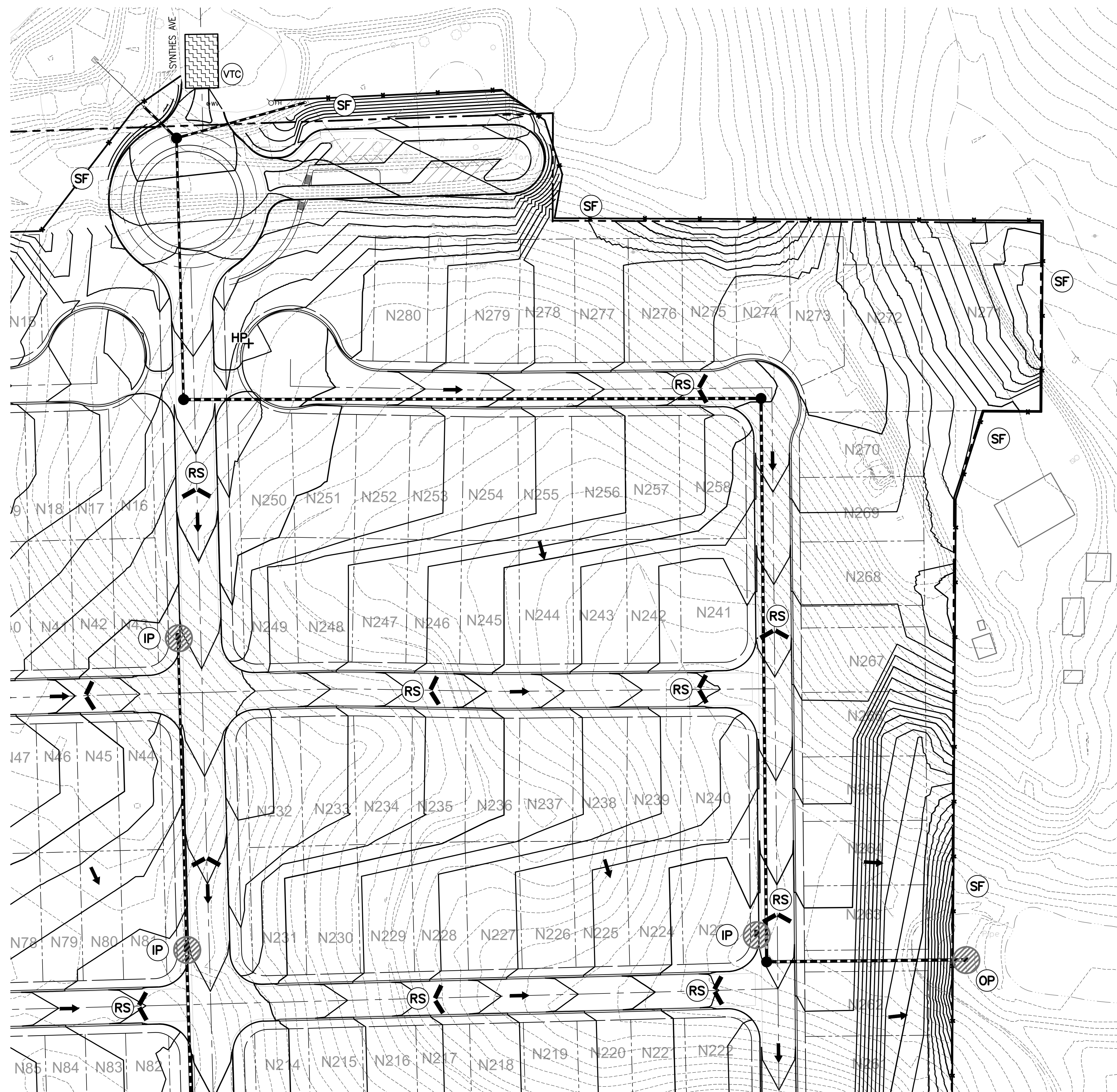
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INITIAL ISSUE	3-12-2020
LATEST ISSUE	
DESIGNED BY:	TDM
DRAWN BY:	GES
CHECKED BY:	TDM
FILE NAME:	20876-05EC01

DRAWING SCALE:
 HORIZONTAL: 1" = 50'
 VERTICAL: N/A

GRADING & EROSION CONTROL PLAN
 PROJECT NO. 20876-05CSCV
 DRAWING NO.

EC02





LEGEND

PROPERTY LINE
PROPOSED LOT LINE	-----
PROPOSED R.O.W. LINE	-----
PROPOSED INTERMEDIATE CONTOUR 6203
PROPOSED INDEX CONTOUR 6205
EX. INTERMEDIATE CONTOUR 6203
EX. INDEX CONTOUR 6205
DIRECTION OF FLOW	↑
PROPOSED STORM SEWER	———
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	■
HIGH POINT	HP+
LOW POINT	LP+
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB
INLET PROTECTION (SEE DETAIL SHEET X)	IP
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB
SILT FENCE (SEE DETAIL SHEET X)	SF
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW
ROCK SOCKS (SEE DETAIL SHEET X)	RS
LIMIT OF DISTURBANCE	———
CUT/FILL LINE	———

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CLIENT:

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WILLOW SPRINGS RANCH
 BAPTIST ROAD & FOREST LAKES DRIVE
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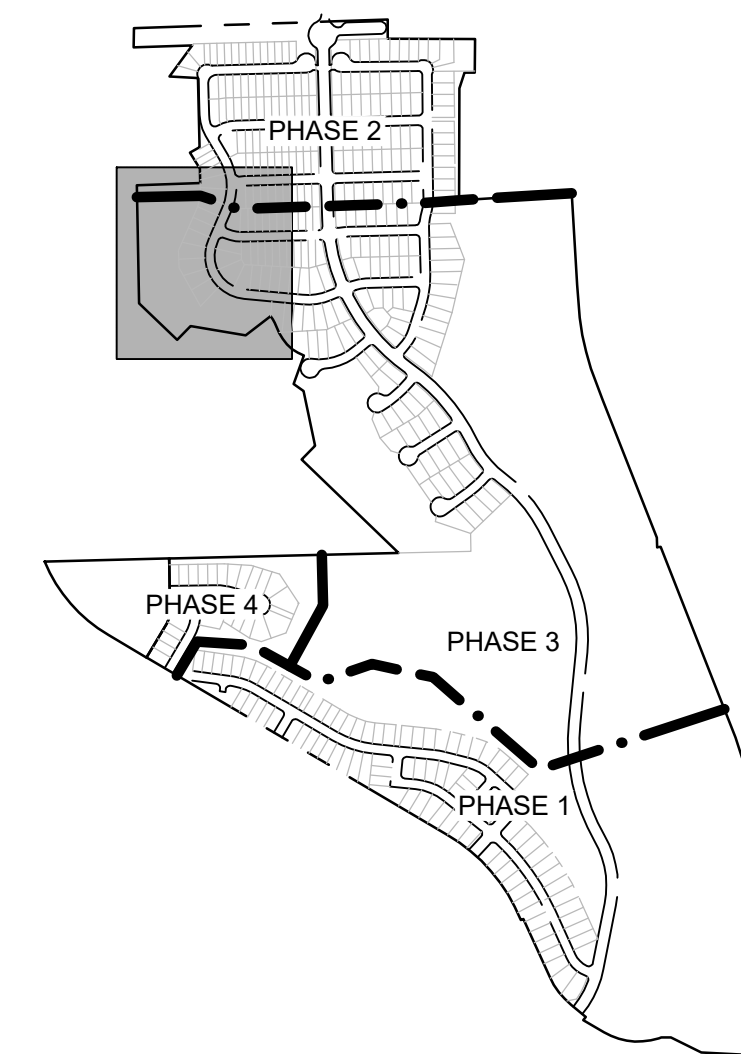
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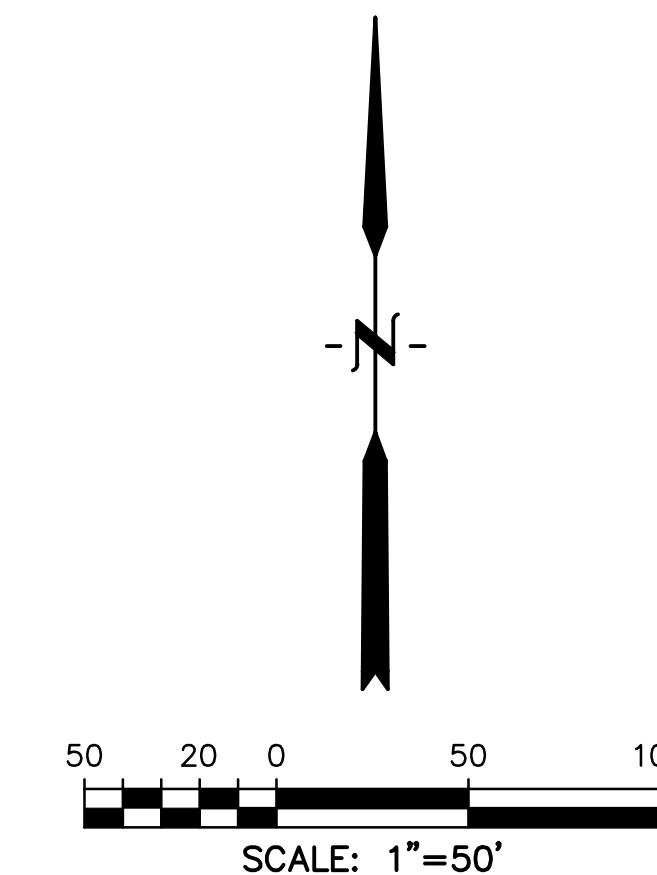
GRADING & EROSION CONTROL PLAN

PROJECT NO. 20876-05CSCV
 DRAWING NO.
EC03
 SHEET: 4 OF 15





KEY MAP
NO SCALE



LEGEND

- PROPERTY LINE
- PROPOSED LOT LINE
- PROPOSED R.O.W. LINE
- PROPOSED INTERMEDIATE CONTOUR 6203
- PROPOSED INDEX CONTOUR 6205
- EX. INTERMEDIATE CONTOUR 6203
- EX. INDEX CONTOUR 6205
- DIRECTION OF FLOW
- PROPOSED STORM SEWER STORM SEWER
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED INLET
- HIGH POINT HP+
- LOW POINT LP+
- CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)
- ROCK CHECK DAM (SEE DETAIL SHEET X)
- EROSION CONTROL BLANKET (SEE DETAIL SHEET X)
- INLET PROTECTION (SEE DETAIL SHEET X)
- OUTLET PROTECTION (SEE DETAIL SHEET X)
- SEDIMENTATION BASIN (SEE DETAIL SHEET X)
- SILT FENCE (SEE DETAIL SHEET X)
- STRAW BALE CHECK DAM (SEE DETAIL SHEET X)
- VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)
- CONCRETE WASHOUT (SEE DETAIL SHEET X)
- ROCK SOCKS (SEE DETAIL SHEET X)
- LIMIT OF DISTURBANCE
- CUT/FILL LINE

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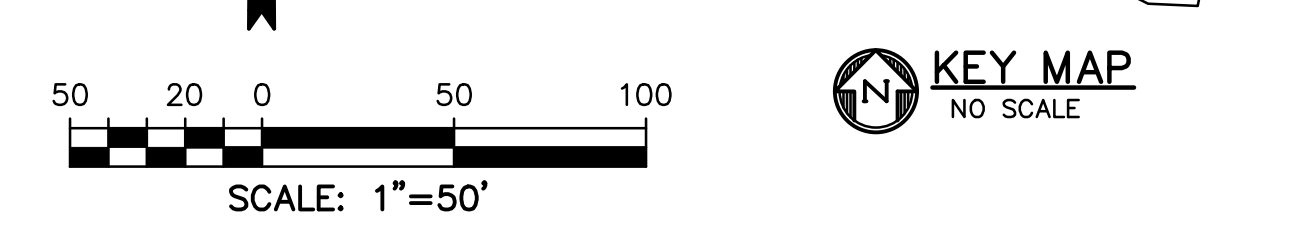
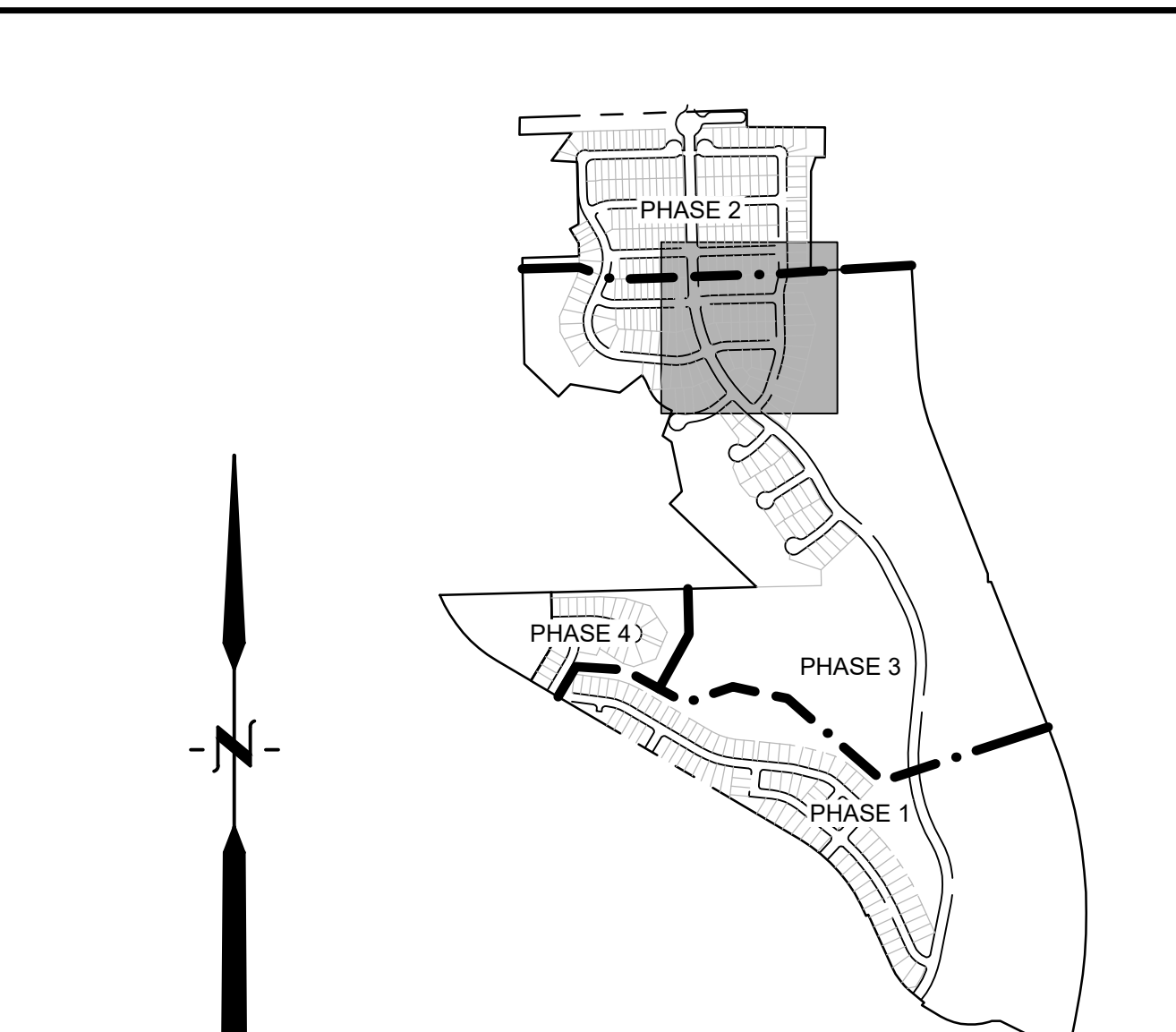
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DRAWN BY:	GES
CHECKED BY:	TDM
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DRAWING SCALE:
 HORIZONTAL: 1" = 50'
 VERTICAL: N/A

GRADING & EROSION CONTROL PLAN

PROJECT NO. 20876-05CSCV
 DRAWING NO. **EC04**





KEY MAP
NO SCALE

LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	- - - -
PROPOSED R.O.W. LINE	————
PROPOSED INTERMEDIATE CONTOUR	——— 6203
PROPOSED INDEX CONTOUR	——— 6205
EX. INTERMEDIATE CONTOUR	——— 6203
EX. INDEX CONTOUR	——— 6205
DIRECTION OF FLOW	→
PROPOSED STORM SEWER	—+—
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	■
HIGH POINT	HP +
LOW POINT	LP +
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB (hatched circle)
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD (circle with triangle)
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB (hatched rectangle)
INLET PROTECTION (SEE DETAIL SHEET X)	IP (hatched circle)
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP (hatched circle)
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB (dotted circle)
SILT FENCE (SEE DETAIL SHEET X)	SF (line with X)
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB (hatched rectangle)
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC (hatched rectangle)
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW (circle with wavy lines)
ROCK SOCKS (SEE DETAIL SHEET X)	RS (line with triangle)
LIMIT OF DISTURBANCE	————
CUT/FILL LINE	- · - · -

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CONSTRUCTION DOCUMENTS FOR:
WILLOW SPRINGS RANCH
BAPTIST ROAD & FOREST LAKES DRIVE
MONUMENT, COLORADO

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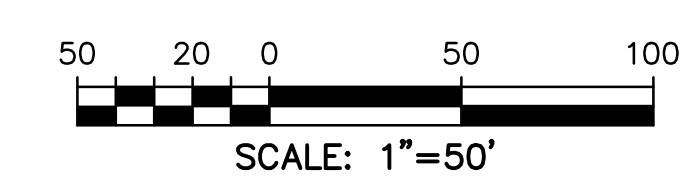
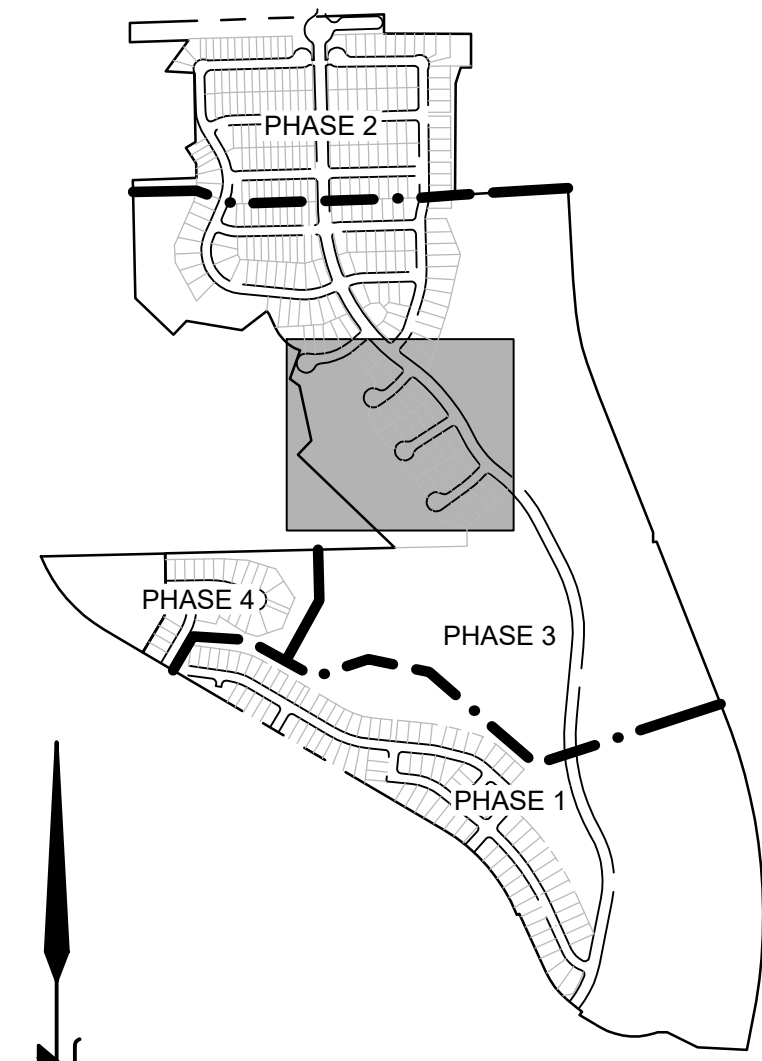
DRAWING SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: N/A

GRADING & EROSION CONTROL PLAN
















PROJECT NO. 20876-05CSCV
DRAWING NO.

EC05

SHEET: 6 OF 15



LEGEND

- PROPERTY LINE
- PROPOSED LOT LINE
- PROPOSED R.O.W. LINE.....
- PROPOSED INTERMEDIATE CONTOUR 6203
- PROPOSED INDEX CONTOUR 6205
- EX. INTERMEDIATE CONTOUR 6203
- EX. INDEX CONTOUR 6205
- DIRECTION OF FLOW 
- PROPOSED STORM SEWER 
- PROPOSED STORM DRAIN MANHOLE 
- PROPOSED INLET 
- HIGH POINT 
- LOW POINT 
- CATCH BASIN INLET PROTECTION 
- (SEE DETAIL SHEET X)
- ROCK CHECK DAM 
- (SEE DETAIL SHEET X)
- EROSION CONTROL BLANKET 
- (SEE DETAIL SHEET X)
- INLET PROTECTION 
- (SEE DETAIL SHEET X)
- OUTLET PROTECTION 
- (SEE DETAIL SHEET X)
- SEDIMENTATION BASIN 
- (SEE DETAIL SHEET X)
- SILT FENCE 
- (SEE DETAIL SHEET X)
- STRAW BALE CHECK DAM 
- (SEE DETAIL SHEET X)
- VEHICLE TRACKING CONTROL 
- (SEE DETAIL SHEET X)
- CONCRETE WASHOUT
- (SEE DETAIL SHEET X)
- ROCK SOCKS
- (SEE DETAIL SHEET X)
- LIMIT OF DISTURBANCE
- CUT/FILL LINE

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CONSTRUCTION DOCUMENTS FOR:
WILLOW SPRINGS RANCH
BAPTIST ROAD & FOREST LAKES DRIVE
MONUMENT, COLORADO

ISSUE	DATE
INITIAL ISSUE	3-12-2020
LATEST ISSUE	

DESIGNED BY: TDM
DRAWN BY: GES
CHECKED BY: TDM
FILE NAME: 20876-05EC01

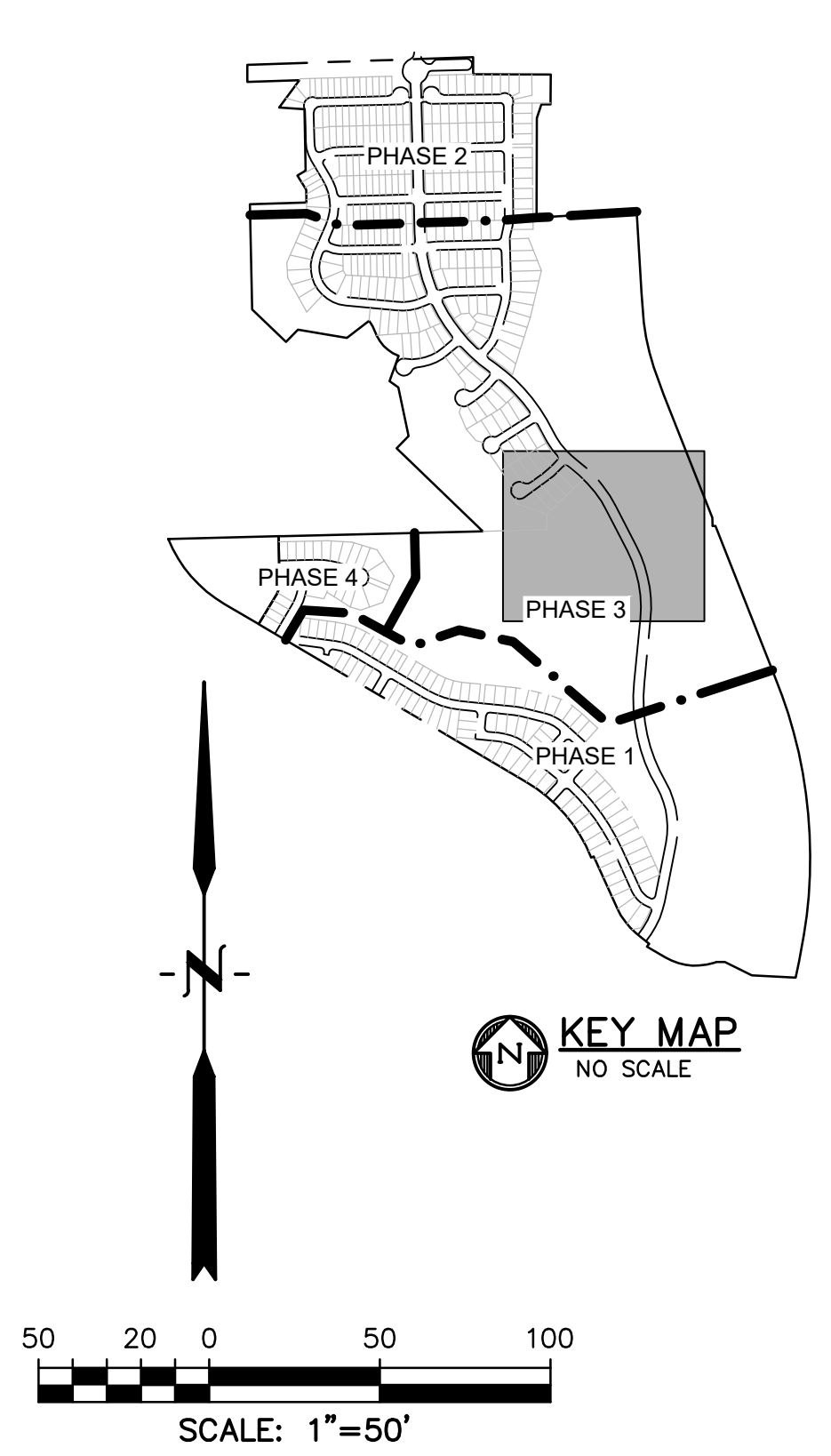
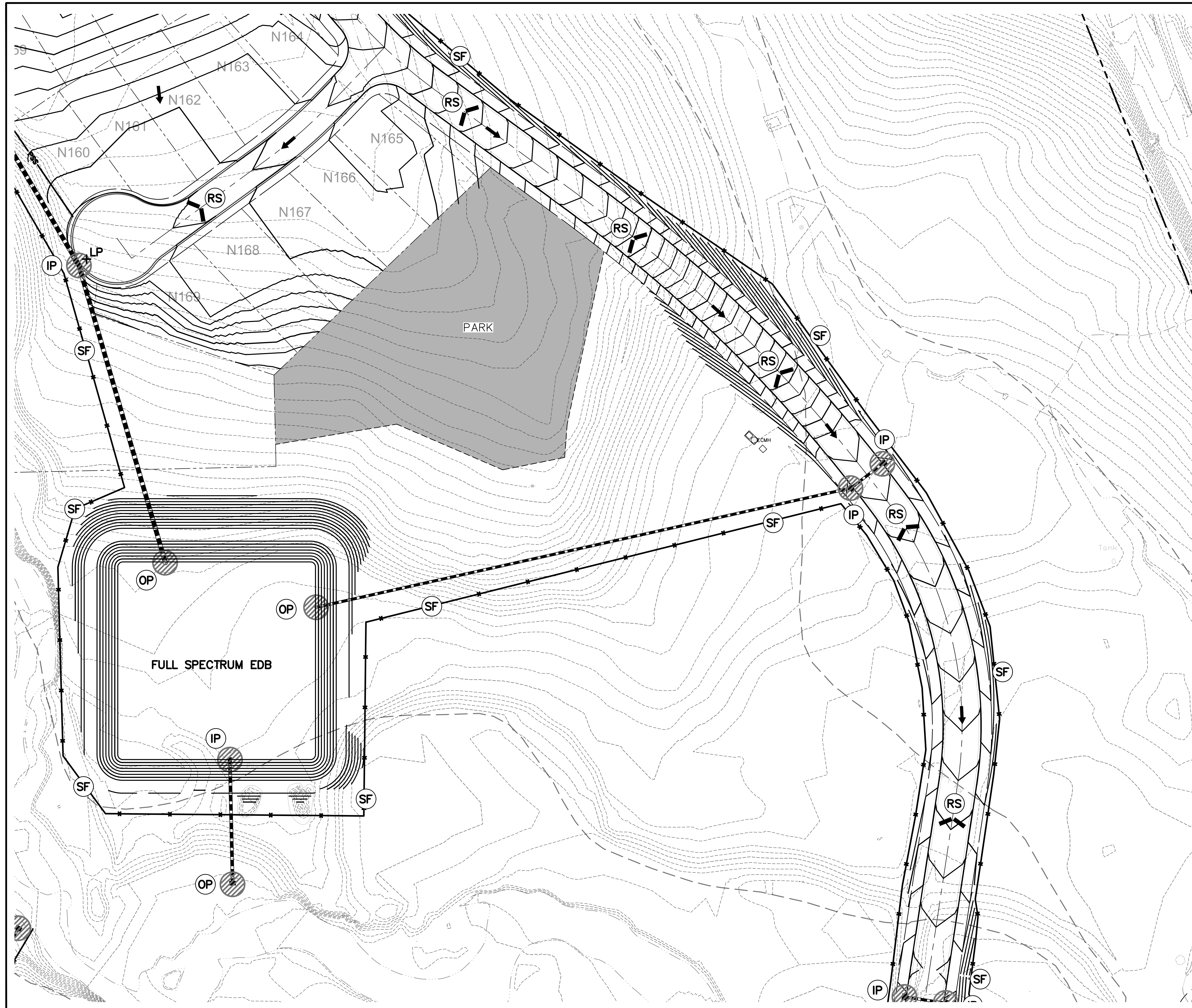
DRAWING SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: N/A

**GRADING &
EROSION
CONTROL PLAN**

PROJECT NO. 20876-05CSCV
DRAWING NO.

EC06

SHEET: 7 OF 15



LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	----
PROPOSED R.O.W. LINE	-----
PROPOSED INTERMEDIATE CONTOUR	—6203—
PROPOSED INDEX CONTOUR	—6205—
EX. INTERMEDIATE CONTOUR	- - -6203- - -
EX. INDEX CONTOUR	- - -6205- - -
DIRECTION OF FLOW	←
PROPOSED STORM SEWER	—+— STORM SEWER
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	■
HIGH POINT	HP+
LOW POINT	LP+
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB
INLET PROTECTION (SEE DETAIL SHEET X)	IP
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB
SILT FENCE (SEE DETAIL SHEET X)	SF
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW
ROCK SOCKS (SEE DETAIL SHEET X)	RS
LIMIT OF DISTURBANCE	—+—
CUT/FILL LINE	—+—

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CONSTRUCTION DOCUMENTS FOR:
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DESIGNED BY:	TDM
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CHECKED BY:	TDM
FILE NAME:	20876-05EC01

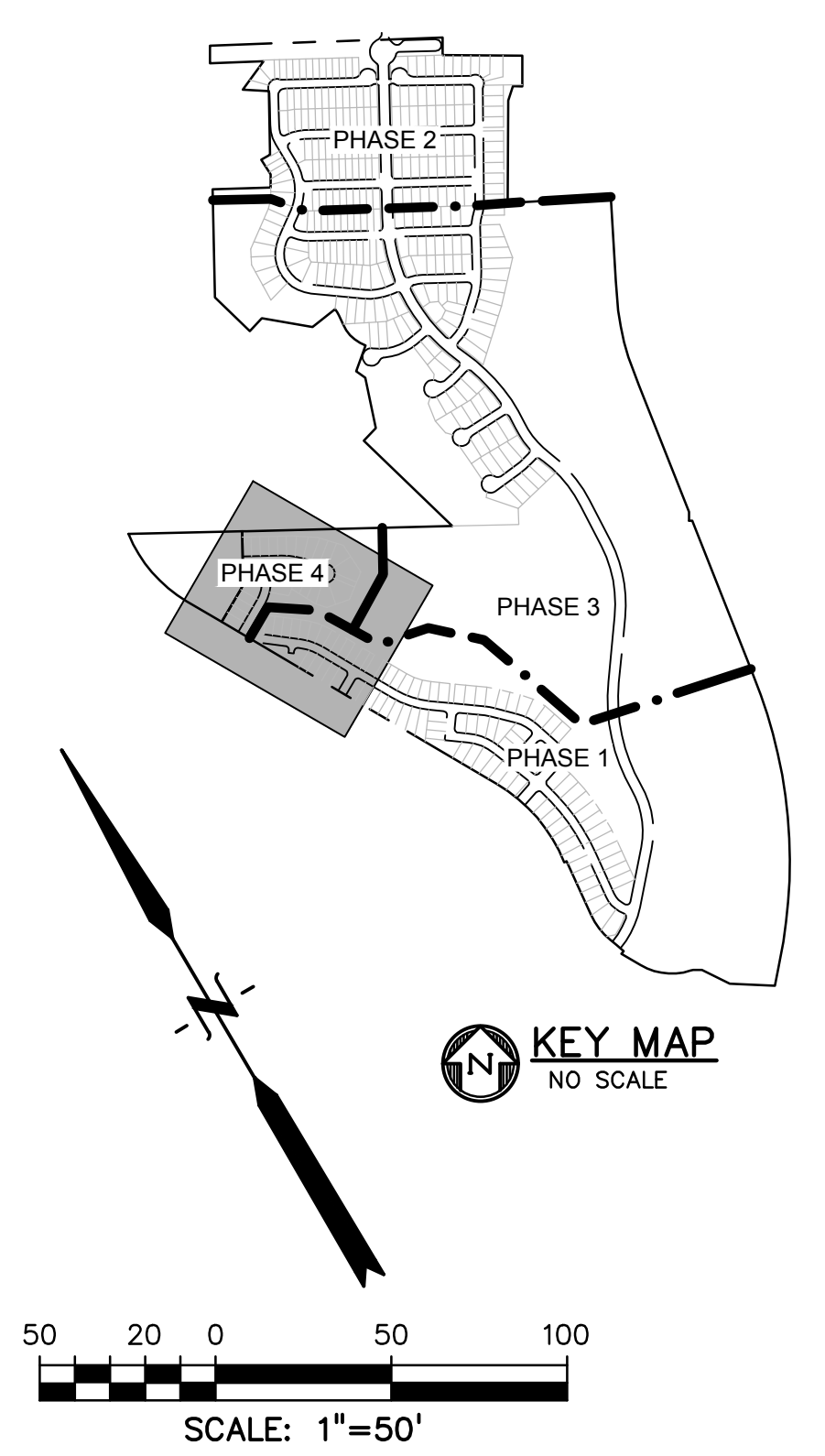
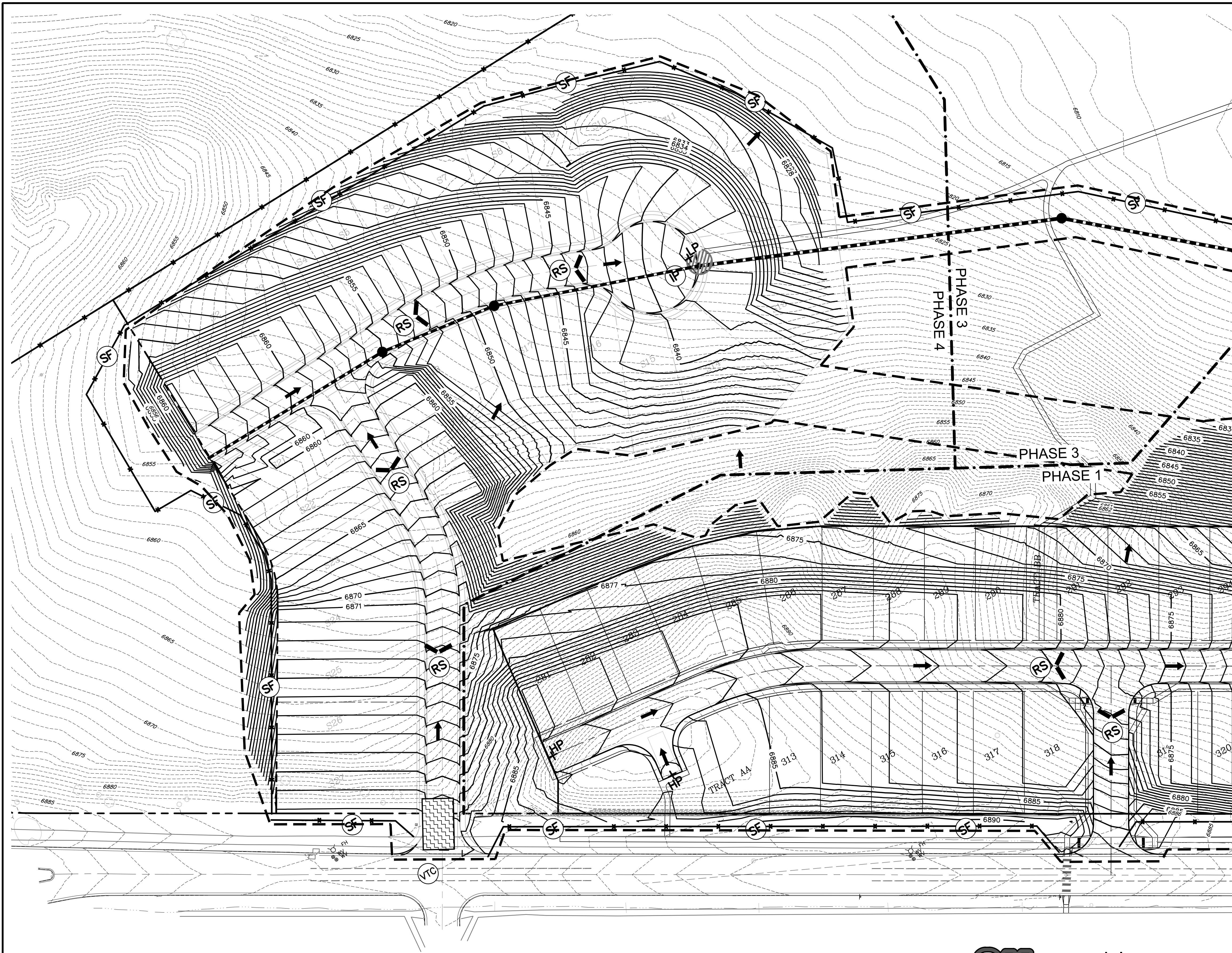
DRAWING SCALE:
 HORIZONTAL: 1" = 50'
 VERTICAL: N/A

GRADING & EROSION CONTROL PLAN

PROJECT NO. 20876-05CSCV
 DRAWING NO.

EC07

SHEET: 8 OF 15



LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	----
PROPOSED R.O.W. LINE	-----
PROPOSED INTERMEDIATE CONTOUR	---6203---
PROPOSED INDEX CONTOUR	---6205---
EX. INTERMEDIATE CONTOUR	---6203---
EX. INDEX CONTOUR	---6205---
DIRECTION OF FLOW	→
PROPOSED STORM SEWER	---S--- (with arrow)
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	○
HIGH POINT	HP+
LOW POINT	LP+
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB (hatched)
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD (triangles)
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB (diagonal lines)
INLET PROTECTION (SEE DETAIL SHEET X)	IP (hatched)
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP (hatched)
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB (dots)
SILT FENCE (SEE DETAIL SHEET X)	SF (cross-hatch)
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB (rectangles)
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC (grid)
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW (dotted)
ROCK SOCKS (SEE DETAIL SHEET X)	RS (inverted V)
LIMIT OF DISTURBANCE	--- ---
CUT/FILL LINE	--- ---

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CONSTRUCTION DOCUMENTS FOR:
WILLOW SPRINGS RANCH
BAPTIST ROAD & FOREST LAKES DRIVE
MONUMENT, COLORADO

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FOREST LAKES	8-12-2021

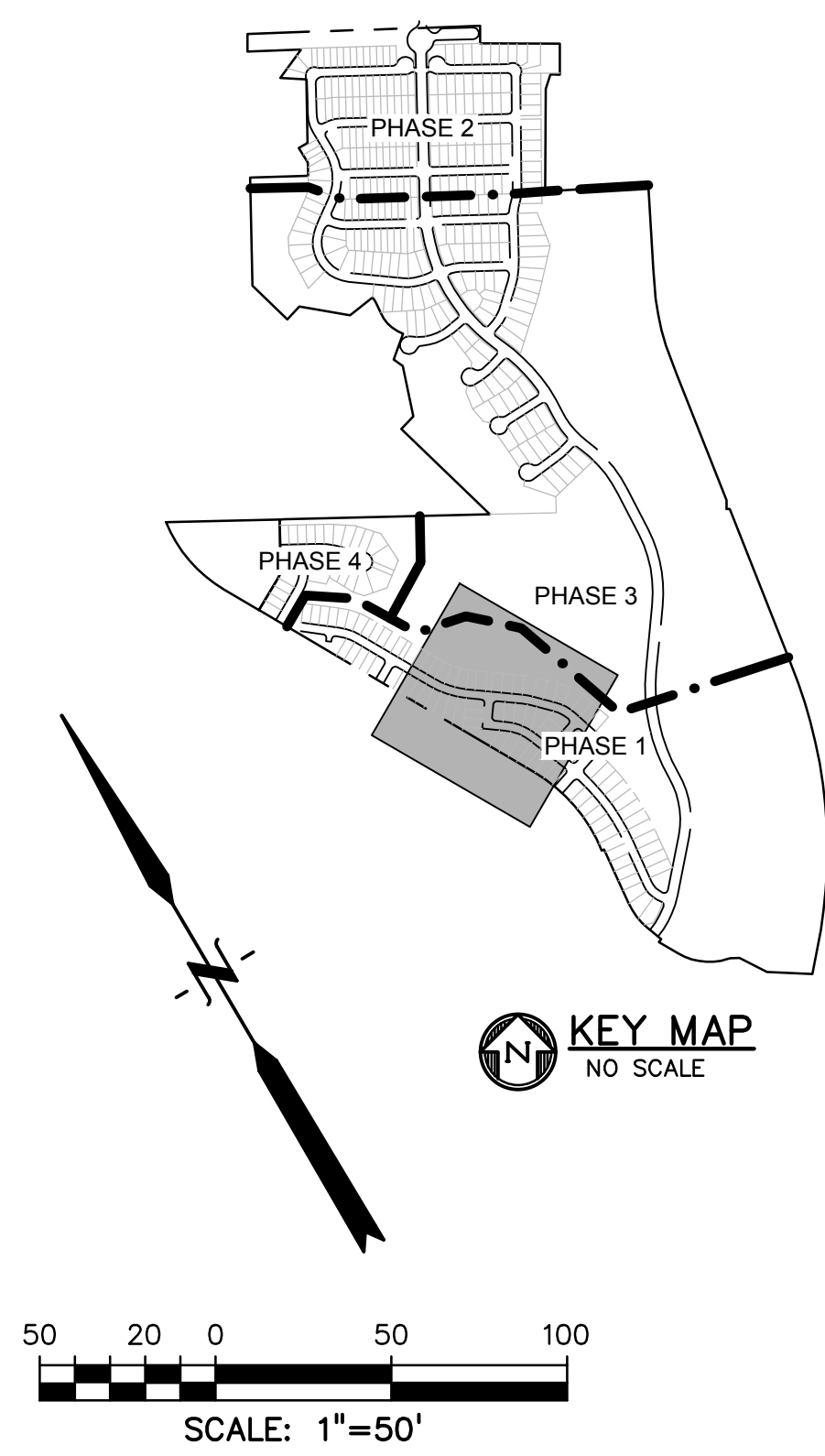
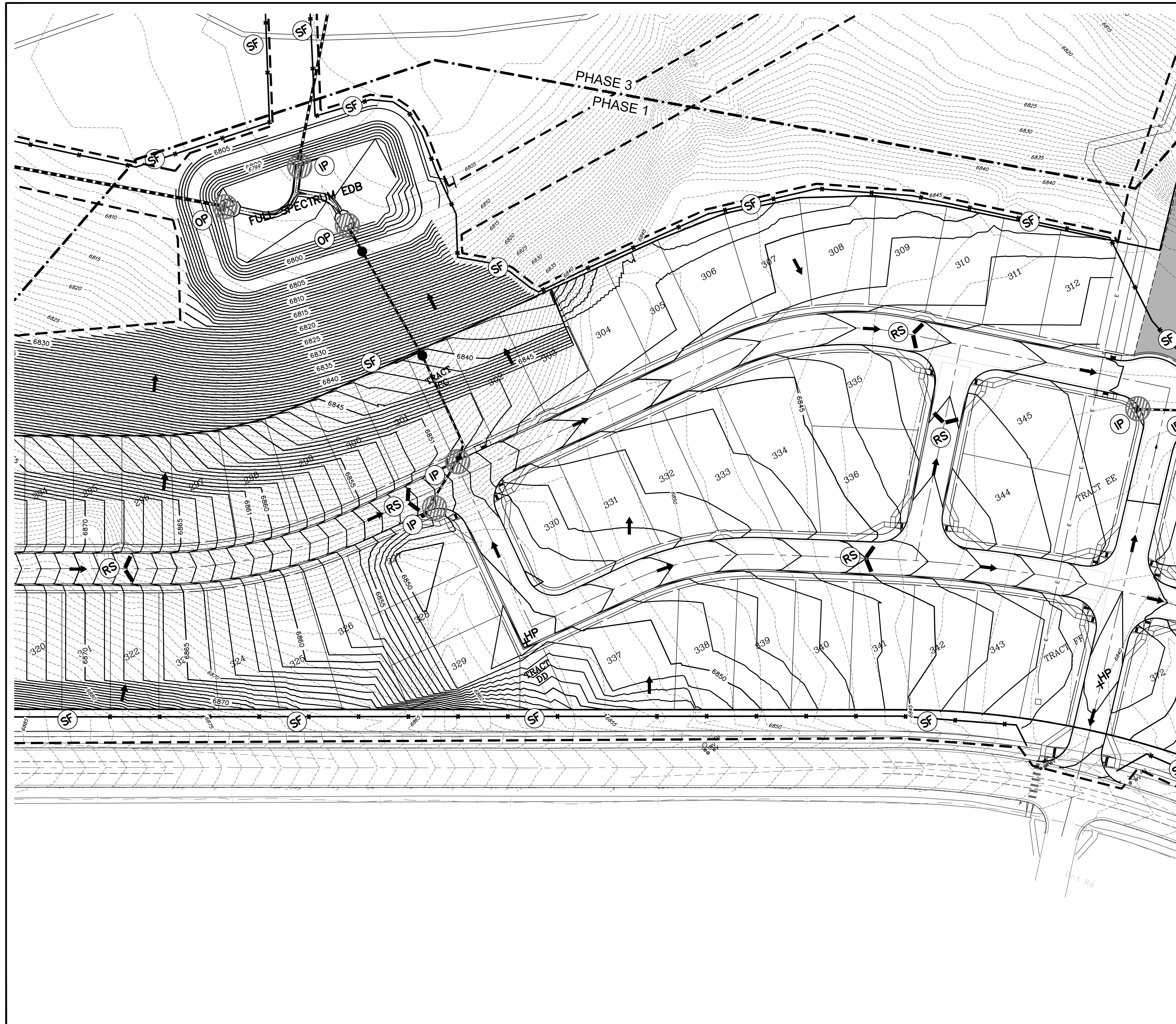
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FILE NAME: 20876-05EC01



DRAWING SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: N/A

GRADING & EROSION CONTROL PLAN
PROJECT NO. 20876-05CSCV
DRAWING NO.

EC09



LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	----
PROPOSED R.O.W. LINE	- - - -
PROPOSED INTERMEDIATE CONTOUR	—6203—
PROPOSED INDEX CONTOUR	—6205—
EX. INTERMEDIATE CONTOUR	- - -6203- - -
EX. INDEX CONTOUR	- - -6205- - -
DIRECTION OF FLOW	←
PROPOSED STORM SEWER	—S—
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	○
HIGH POINT	HP+
LOW POINT	LP+
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB
INLET PROTECTION (SEE DETAIL SHEET X)	IP
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB
SILT FENCE (SEE DETAIL SHEET X)	SF
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW
ROCK SOCKS (SEE DETAIL SHEET X)	RS
LIMIT OF DISTURBANCE	- - - -
CUT/FILL LINE	—+—

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CONSTRUCTION DOCUMENTS FOR:
WILLOW SPRINGS RANCH
 BAPTIST ROAD & FOREST LAKES DRIVE
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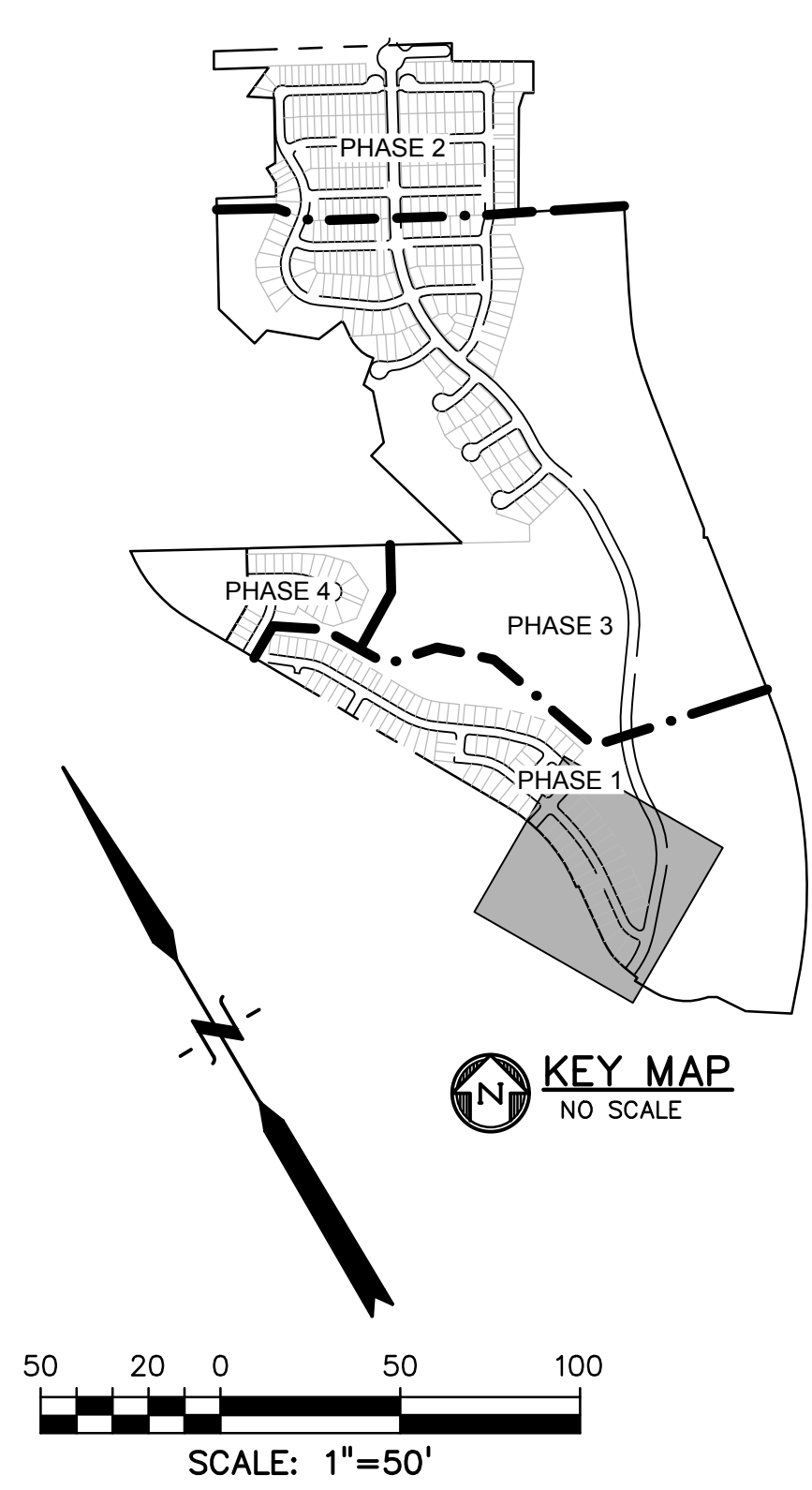
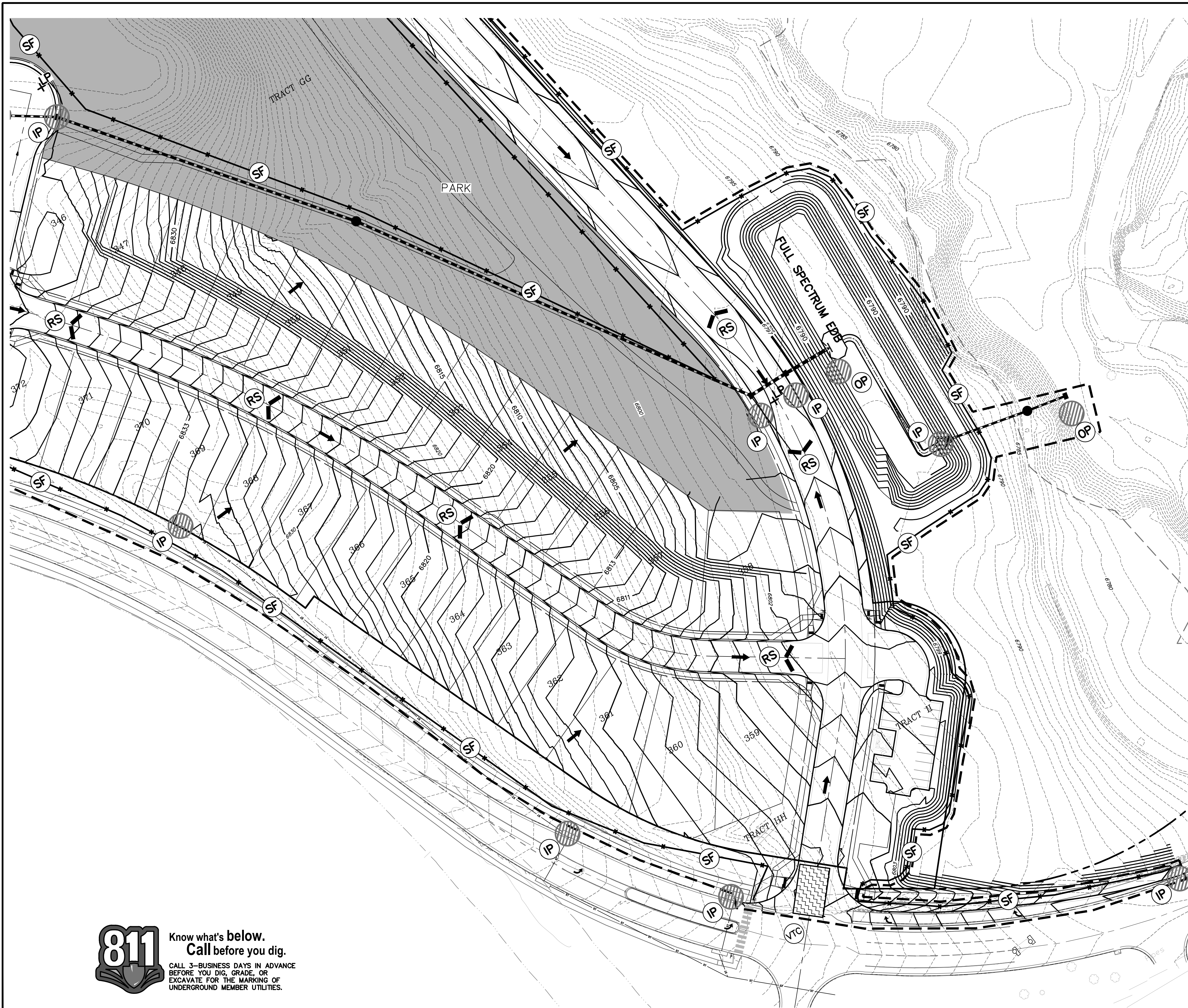
ISSUE	DATE
INITIAL ISSUE	3-12-2020
LATEST ISSUE	4-20-2020
FOREST LAKES	8-12-2021
DESIGNED BY:	TDM
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CHECKED BY:	TDM
FILE NAME:	20876-05EC01



DRAWING SCALE:
 HORIZONTAL: 1" = 50'
 VERTICAL: N/A

GRADING & EROSION CONTROL PLAN
 PROJECT NO. 20876-05CSCV
 DRAWING NO.

EC10
 SHEET: 11 OF 15



LEGEND

PROPERTY LINE	---
PROPOSED LOT LINE	- - - - -
PROPOSED R.O.W. LINE	---
PROPOSED INTERMEDIATE CONTOUR	—6203—
PROPOSED INDEX CONTOUR	—6205—
EX. INTERMEDIATE CONTOUR	- -6203- -
EX. INDEX CONTOUR	- -6205- -
DIRECTION OF FLOW	→
PROPOSED STORM SEWER	—S—
PROPOSED STORM DRAIN MANHOLE	●
PROPOSED INLET	■
HIGH POINT	HP+
LOW POINT	LP+
CATCH BASIN INLET PROTECTION (SEE DETAIL SHEET X)	CB
ROCK CHECK DAM (SEE DETAIL SHEET X)	CD
EROSION CONTROL BLANKET (SEE DETAIL SHEET X)	ECB
INLET PROTECTION (SEE DETAIL SHEET X)	IP
OUTLET PROTECTION (SEE DETAIL SHEET X)	OP
SEDIMENTATION BASIN (SEE DETAIL SHEET X)	SB
SILT FENCE (SEE DETAIL SHEET X)	SF
STRAW BALE CHECK DAM (SEE DETAIL SHEET X)	STB
VEHICLE TRACKING CONTROL (SEE DETAIL SHEET X)	VTC
CONCRETE WASHOUT (SEE DETAIL SHEET X)	CW
ROCK SOCKS (SEE DETAIL SHEET X)	RS
LIMIT OF DISTURBANCE	- - - - -
CUT/FILL LINE	—+—

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CALL 3-BUSINESS DAYS IN ADVANCE
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EXCAVATE FOR THE MARKING OF
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CONSTRUCTION DOCUMENTS FOR:
WILLOW SPRINGS RANCH
BAPTIST ROAD & FOREST LAKES DRIVE
MONUMENT, COLORADO

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INITIAL ISSUE	3-12-2020
LATEST ISSUE	4-20-2020
FOREST LAKES	8-12-2021

DESIGNED BY: TDM
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CHECKED BY: TDM
FILE NAME: 20876-05EC01

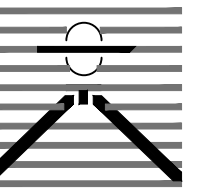


DRAWING SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: N/A

GRADING & EROSION CONTROL PLAN
PROJECT NO. 20876-05CSCV
DRAWING NO.

EC11
SHEET: 12 OF 15

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CONSTRUCTION DOCUMENTS FOR:

WILLOW SPRINGS RANCH
BAPTIST ROAD & FOREST LAKES DRIVE
MONUMENT, COLORADO

ISSUE	DATE
INITIAL ISSUE	3-12-2020
LATEST ISSUE	

DESIGNED BY:	TDM
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CHECKED BY:	TDM
FILE NAME:	20876-05EC001

DRAWING SCALE:
HORIZONTAL: X" = XX"
VERTICAL: X" = XX"

EROSION CONTROL
DETAILS

PROJECT NO. 20876-05CSCV
DRAWING NO.

EC12

SHEET: 13 OF 15



Know what's below.
Call before you dig.
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

SC-6 Inlet Protection (IP)

IP-1. BLOCK AND ROCK SOCK SLUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- CONCRETE "CINDER" BLOCKS SHALL BE Laid ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ADJUTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
- GRASS MATS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ADJUTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.

IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

- SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
- SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 3 FEET APART.
- AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-CURB INLETS.

IP-4 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

SC-6 Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF INLET PROTECTION.
-TYPE OF INLET PROTECTION (IP-1, IP-2, IP-3, IP-4, IP-5, IP-6)
- INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A MINOR/MAJOR EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
- 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.

INLET PROTECTION 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 UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES SIZE OF CAPACITY, A DEPTH OF 6" WHEN SALT FENCE IS USED, OR X OF THE HEIGHT FOR STRAW BALES.
- INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
- WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDS, AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM MANUAL, COLORADO AND CITY OF ARAPAHO, COLORADO, NOT AVAILABLE IN AUTOCAD)

IP-8 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

Sediment Basin (SB) SC-7

SC-7 Sediment Basin (SB)

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (Equivalent to nearest acre) (ac)	Basin Bottom Width (ft)	Spillway Crest Length (ft) (N)	Rock Diameter (in) (N)
1	12 1/2	3	3/4
2	15	4	1
3	17 1/2	5	1 1/4
4	19 1/2	6	1 1/2
5	21 1/2	7	1 3/4
6	23 1/2	8	1 3/4
7	25 1/2	9	1 3/4
8	27 1/2	10	1 3/4
9	29 1/2	11	1 3/4
10	31 1/2	12	1 3/4
11	33 1/2	13	1 3/4
12	35 1/2	14	1 3/4
13	37 1/2	15	1 3/4
14	39 1/2	16	1 3/4
15	41 1/2	17	1 3/4

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 (N), CREST LENGTH (N), AND HOLE DIAMETER (N).
-FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RIDGE HEIGHT (N), NUMBER OF COLUMNS (N), HOLE DIAMETER (N) AND PIPE DIAMETER (N).
- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- SEDIMENT BASKETS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-OBSTRUCTING ACTIVITY THAT RELIES ON ON BASINS AS A STORMWATER CONTROL.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL, FREE OF DEBRIS, ORGANIC MATERIAL AND ROCKS OR CONCRETES 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 D998.
- 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. USE 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.

(DETAILS ADAPTED FROM MANUAL, COLORADO, NOT AVAILABLE IN AUTOCAD)

August 2013 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

EC-8 Temporary Outlet Protection (TOP)

OP-1. TEMPORARY OUTLET PROTECTION

TEMPORARY OUTLET PROTECTION PLAN

SECTION A

TABLE OP-1. TEMPORARY OUTLET PROTECTION SIZING TABLE

PIPE DIAMETER, D _p (INCHES)	DISCHARGE Q (CFS)	APPROX. LENGTH, L _o (FT)	RIPRAP SIZE (INCHES)
8	2.5	5	4
12	5	10	4
18	10	15	6
24	20	25	12
30	30	35	12
36	40	45	12
42	50	55	12
48	60	65	12
54	70	75	12
60	80	85	12

TOP-2 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

EC-8 Temporary Outlet Protection (TOP)

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF OUTLET PROTECTION.
-DIMENSIONS OF OUTLET PROTECTION.
- DETAIL IS INTENDED FOR PAVES WITH SLOPE < 10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
- TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND 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.
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(DETAILS ADAPTED FROM MANUAL, COLORADO AND PERIOD VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

Vehicle Tracking Control (VTC) SM-4

SM-4 Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
-TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
- CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
- A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT 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.
- ROCK SHALL BE REAPPLIED OR REGRANDED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
- SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

(DETAILS ADAPTED FROM CITY OF BROWNSVILLE, COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

Vehicle Tracking Control (VTC) SM-4

AGGREGATE VEHICLE TRACKING CONTROL

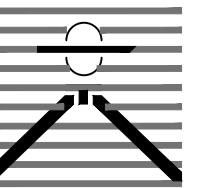
VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

November 2010 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3



Know what's below.
Call before you dig.
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

PREPARED BY:



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CLIENT:



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CONSTRUCTION DOCUMENTS FOR:

WILLOW SPRINGS RANCH BAPTIST ROAD & FOREST LAKES DRIVE MONUMENT, COLORADO

Table with 2 columns: ISSUE, DATE. Row 1: INITIAL ISSUE, 3-12-2020. Row 2: LATEST ISSUE

Table with 2 columns: DESIGNED BY: TDM, DRAWN BY: SLG, CHECKED BY: TDM, FILE NAME: 20876-05ECD01

DRAWING SCALE: HORIZONTAL: X" = XX" VERTICAL: X" = XX"

EROSION CONTROL DETAILS

PROJECT NO. 20876-05CSCV DRAWING NO.

EC14

SHEET: 15 OF 15



Know what's below. Call before you dig. CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

EC-6 Rolled Erosion Control Products (RECP) EC-6. Includes diagrams for ECB-1 (PIPE OUTLET TO DRAINAGEWAY) and ECB-2 (SMALL DITCH OR DRAINAGEWAY) with installation notes and material specifications.

EC-6 Rolled Erosion Control Products (RECP) EC-6. Includes diagram for ECB-3 (OUTSIDE OF DRAINAGEWAY) and STAKING PATTERNS BY ECB TYPE and BY SLOPE OR CHANNEL TYPE.

EC-6 Rolled Erosion Control Products (RECP) EC-6. Includes EROSION CONTROL BLANKET INSTALLATION NOTES and TABLE ECB-1: ECB MATERIAL SPECIFICATIONS.

EC-6 Rolled Erosion Control Products (RECP) EC-6. Includes EROSION CONTROL BLANKET MAINTENANCE NOTES.

SM-6 Stabilized Staging Area (SSA) SM-6. Includes diagram for SSA-1 (STABILIZED STAGING AREA) and STABILIZED STAGING AREA INSTALLATION NOTES.

SM-6 Stabilized Staging Area (SSA) SM-6. Includes STABILIZED STAGING AREA MAINTENANCE NOTES.

EC-12 Check Dams (CD) EC-12. Includes diagram for CD-1 (CHECK DAM) and CHECK DAM ELEVATION VIEW and SECTION A and B.

EC-12 Check Dams (CD) EC-12. Includes CHECK DAM INSTALLATION NOTES and CHECK DAM MAINTENANCE NOTES.