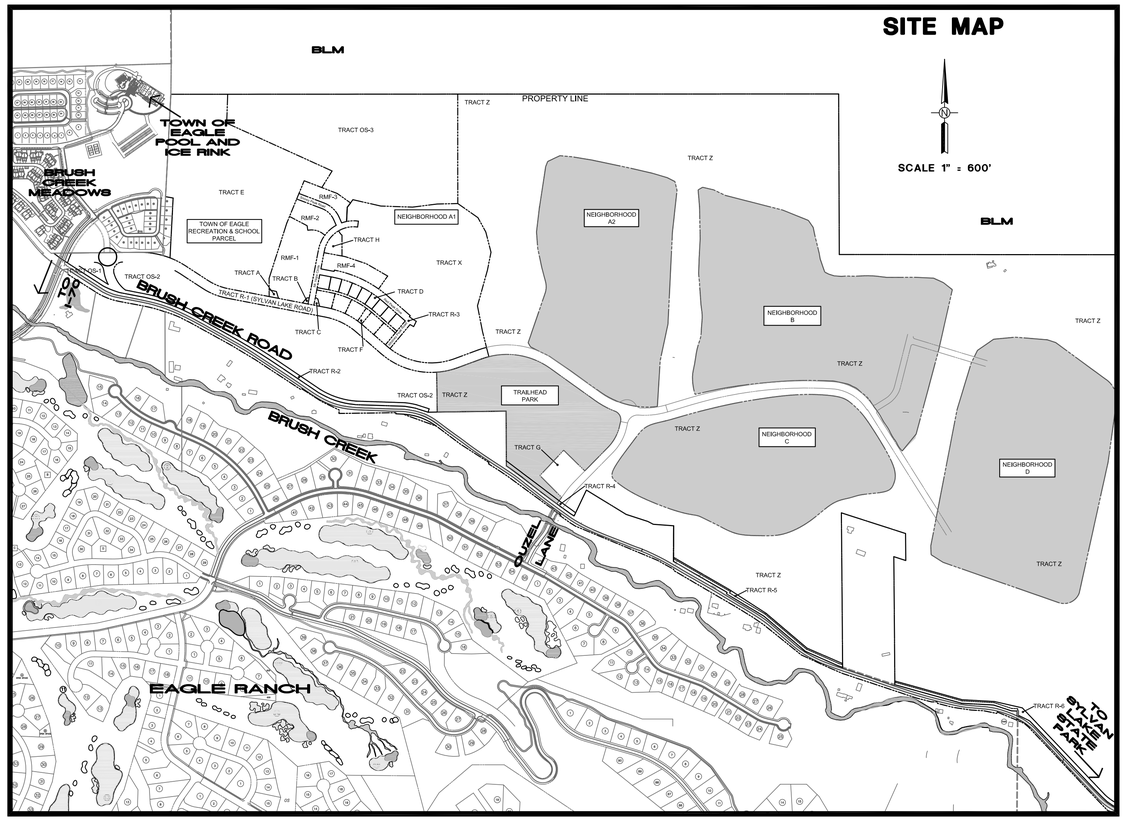
HAYMEADOW FILING 1
ACCESS AND INFRASTRUCTURE PLANS
EAGLE, COLORADO
FEBRUARY 2019

GENERAL NOTES

1. Alpine Engineering, Inc., assumes no responsibility for utility locations. It is the contractor's responsibility to field verify the location of all utilities prior to commencement of any construction.
2. The Contractor shall take all appropriate precautions to significantly reduce any potential pollution caused by his activities, including vehicle fueling, storage of fertilizers or chemicals, etc. The contractor shall have identified procedures for handling potential pollutants and have identified spill prevention and response procedures prior to any activities at the project site, and shall comply with the conditions and requirements of the cdphe stormwater management permit and plan.
3. The Contractor shall minimize all off site soil tracking. All soil tracked off site shall be immediately cleaned up to the satisfaction of the owner & town of eagle. Install stabilized construction entrance prior to commencement of any construction activities.
4. All excavating for roadway, retaining walls, drainage facilities and other trenches shall meet osha requirements.
5. The Contractor shall keep a set of contract drawings marked up to fully indicate asbuilt conditions. The drawings shall be provided to alpine engineering, inc. Upon completion of this work. Asbuilt information needs to be GPS and submitted to the Town in Autocad and GIS formats.
6. Safety is the responsibility of the contractor. The engineer is not responsible for safety in, on or about the project site, nor for compliance by the appropriate party with any regulations relating thereto.
7. Observations of the work in progress and on-site visits are not to be construed as a guarantee or warranty by the engineer of the contractor's contractual obligations.
8. If any groundwater is encountered the contractor shall contact Alpine Engineering, Inc. And H.P. Kumar immediately.
9. The Contractor shall maintain traffic at all times to the satisfaction of the owner and the Town of Eagle. The contractor shall minimize traffic disruptions and provide adequate safety precautions to ensure public safety. The Contractor must submit traffic control plan to Town of Eagle and receive approval prior to any construction.
10. The Contractor shall protect and preserve all trees, bushes, shrubs, and ground cover in a manner acceptable to the owner, and as defined within the pertinent permits.
11. The Contractor shall maintain existing drainage channels, culverts, and appurtenances during construction as necessary to protect roads and property.
12. The Contractor shall grade in order to provide positive drainage.
13. Retaining walls greater than 4 feet in height shall require a structural design by a structural engineer.
14. The Contractor shall adhere to all the terms, conditions & requirements contained within the U.S. Army Corps of Engineers 404 wetlands permit.

SITE MAP



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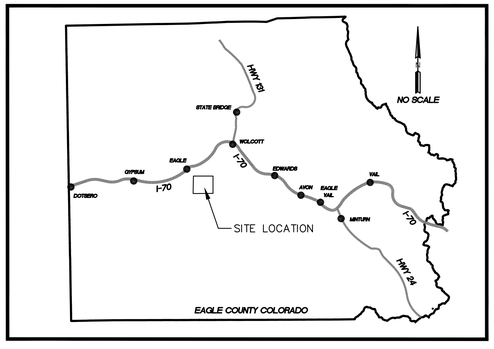

LOCATION MAP

PROJECT CONTACTS

DEVELOPER, HAYMEADOW METRO DISTRICT: BRANDON COHEN (brandon@abrika.com)	(561) 271-6100
OWNER'S REPRESENTATIVE: SCOTT SCHLOSSER (scottes@vail.net)	(561) 271-6100
PLANNER, PYLMAN AND ASSOCIATES: RICK PYLMAN (Rick@pylman.com)	(970) 926-6065
CIVIL ENGINEER, ALPINE ENGINEERING: MATT WADEY (wadey@alpinecivil.com)	(970) 926-3373
LANDSCAPE ARCHITECT, DHM DESIGN: LAURA KIRK (lkirk@dhmdesigncom)	(970) 963-6520
ARCHITECT, 359 DESIGN, LLC: JOE COLEMAN (jcoleman@359designcom)	(970) 619-5195
NON-POTABLE ENGINEER, SGM INC: DAVE KOTZ (davek@sgm-inc.com)	(970) 384-9008
LIGHTING CONSULTANT, BG BUILDING WORKS: TIM McCABE (tmmccabe@bgbuildingworks.com)	(970) 949-6108
IRRIGATION DESIGN, GJ PIPE: MARK GIBBONS (mark.gibbons@gjpipe.com)	(561) 244-8141
SURVEYING, ALC: TED ARCHIBEQUE (ted@prolandsurvey.com)	(970) 328-6020
TOWN OF EAGLE, ENGINEERING: VERN BROCK (vern.brock@townofeagle.org)	(970) 328-6542
TOWN OF EAGLE, PUBLIC WORKS: BRYON McGINNIS (bryon@townofeagle.org)	(970) 328-6678
TOWN OF EAGLE, PUBLIC WORKS: JERAD PARKER (jerad@townofeagle.org)	(970) 328-6678
TOWN OF EAGLE, PUBLIC WORKS: JOHN BOYD (john@townofeagle.org)	(970) 328-6549
TOWN OF EAGLE, PUBLIC WORKS: DERON DIRCKSEN (deron@townofeagle.org)	(970) 328-6546
BLACK HILLS ENERGY: TODD ELLSWORTH (Todd.Ellsworth@blackhillscorp.com)	(970) 928-0418
HOLY CROSS ENERGY (ELECTRIC): KEITH HERNANDEZ (khernandez@holycross.com)	(970) 947-5439
CENTURY LINK (PHONE\CATV): JASON SHARPE (jason.sharpe@centurylink.com)	(970) 309-2973
GEOTECHNICAL ENGINEER, HP-KUMAR: DAVE YOUNG (dyoung@kumarusa.com)	(970) 384-4837

APPROVED BY THE TOWN OF EAGLE

BY: _____

DATE: _____

811

FOR BURIED UTILITY INFORMATION
THREE (3) BUSINESS DAYS
BEFORE YOU DIG
CALL 811
(or 1-800-922-1987)
UTILITY NOTIFICATION
CENTER OF COLORADO (UNCC)
www.uncc.org

ALPINE ENGINEERING INC.
34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

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11-8-18
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PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

CIVIL COVER SHEET

NO.	DATE	REVISIONS	BY
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DRAWN RF
CHECKED MCW
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DATE 02/20/2019

SHEET C1.01

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WATER SYSTEM NOTES:

1. Water construction shall conform to the standards and specifications per the Town of Eagle Public Works Manual.

SANITARY SEWER SYSTEM NOTES:

1. Sanitary Sewer construction shall conform to the standards and specifications per the Town of Eagle Public Works Manual.

CONSTRUCTION NOTES

1. TOE FD Knox Lock to be placed at each entrance for after hours FD access.
2. Temporary entrances to to have proper tracking pad, erosion control and signage accordingly.
3. Temporary toilets and trash to be added and subtracted throughout. Placement may be adjacent to current activities within the area of disturbance in order to ensure best practices.
4. Contractor to use water truck to reduce dust, and must pay special attention to dust around Soiell Homes.
5. Contractor to use future roads and recreation paths to best of their ability to reduce the need for additional temporary haul roads.
6. Contractor to operate within TOE standard construction hours and best practices. Additional working days, such as Sunday, contractor shall contact TOE for extended hours. Emergencies excluded such as broken utility pipe.

ROADWAY DESIGN CRITERIA:

DESIGN CRITERIA	ARTERIAL	COLLECTOR	LOCAL
ROAD NAME	SYLVAN LAKE ROAD	SYLVAN LAKE ROAD & OUZEL LANE	ROADS A–E
(STATIONING)	(STA 0+00–22+00)	(STA 22+00– OUZEL INTERSECTION)	(ALL ROADS)
RIGHT OF WAY WIDTH	80 FEET	60 FEET	50 FEET
LANE WIDTH	11 FEET	11 FEET	11 FEET
SHOULDER TYPE\WIDTH	PAVED–5 FEET	PAVED–5 FEET	CURB & GUTTER
DESIGN SPEED	40 MPH	30 MPH	25 MPH
MAXIMUM CENTERLINE GRADE	8%	8%	8%
K VALUE (SAG CURVE)	40	40	20
K VALUE (CREST CURVE)	30	30	10
MIN CENTERLINE RADIUS	350 FEET	350 FEET	150 FEET
MIN TANGENT BETWEEN CURVES	200 FEET	85 FEET	85 FEET
MIN DISTANCE BETWEEN INTERSECTIONS	500 FEET	400 FEET	200 FEET

DRAINAGE NOTES:

1. All storm drains and culverts shall be constructed in accordance with the Technical Specifications.

2. Types of structures refer to the Colorado Department of Transportation M and S Standards, CDOT Standard Specifications, or are included on the details sheets.

3. Alpine Engineering, Inc., assumes no responsibility for utility locations. It is the Contractor's responsibility to field verify the location of all utilities prior to commencement of any construction.

4. All drain pipes shall be installed with the required bedding.

5. Elevations shown are at pipe invert unless otherwise shown.

6. All standard storm drain structures are subject to modification by the Engineer to meet field requirements.

7. Contractor to provide Culvert Outlet Protection (see SD detail Sheet) at storm drain and culvert outfalls unless otherwise noted.

8. All storm drain and culvert outfalls to have End Sections or Endwalls unless they are to be extended in the future.

9. Inlet boxes to be oversized to accommodate pipe size where necessary. Provide AASHTO HS–20 truck load rated top slab to accommodate grate and frame for oversized boxes.

10. All Reinforced Concrete Pipe shall be Class 3 unless noted otherwise. All Reinforced Concrete Pipe Joints (RCP) shall utilize Type R–4 Rubber Gasket Joints which shall be in accordance with AASHTO M198 and ASTM C443 (standard specifications for joints for circular concrete pipe using rubber gaskets).

11. Pipe lengths indicated are slope lengths measured along the centerline of pipe from inside face of box (or manhole) to inside face of box (or manhole).

12. Pipe lengths for last run at outfalls do not include the Flared End Section.

13. Storm drainage facilities need to be periodically inspected and maintained in order to assure that they are functioning properly.

BLACK HILLS ENERGY SERVICE LINE EXCAVATION

1.) All sites will be required to provide sand or road base with no frost for bedding and shading of the installed gas service line during the winter months. Contact your local Utility Construction Specialist for further information.

Providing that the main gas line is on your side of the street, and not in the street, you need to have a contractor dig a trench meeting the following requirements:

2.) 4'x4' bell hole must be dug so that 4' of the main is exposed lengthwise, with a minimum of 1' clearance under the main and 1' behind the main, in order for the fusion tools to be used.

3.) In the event there is a stub, a 4'x4' bell hole must be dug around the stub.

4.) In the event the gas main is steel, a 6' square bell hole exposing the main must be dug, with a clearance of 16" under the main in order for welding equipment to be used.

5.) Trench to be 6" wide and a minimum of 24" deep (30" is preferred).

6.) Trenches must be dug to the foundation and the foundation completely exposed at the location of the service riser.

7.) A minimum clearance of 3' is required between the gas line and any other utility or underground structures.

8.) Service lines must be perpendicular from the main to the house. They may not cross adjoining properties.

9.) They may not cross driveways or be trenched under a proposed driveway; this can be handled on a case by case basis for custom applications.

HOLY CROSS ENERGY NOTES:

TRENCH AND CONDUIT

I.

1. The developer or contractor will contact Holy Cross Energy before conduit and vault installation begins to schedule a pre–construction meeting with the project inspector.

2. Changes in power facility construction from that shown on the project plans will not be made without advance approval from the Holy Cross Energy inspector.

3. Holy Cross Energy material shall not be moved from the project to which it was assigned without the advance approval of the inspector and the completion of necessary paperwork. Holy Cross Energy material shall not be installed for any use other than construction of power facilities.

4. All roads will be built to subgrade and all drainages will be constructed to grade before any vaults or conduits are installed.

5. All trench will be excavated deep enough to ensure that the top of installed power facilities will be 48" below final grade. Special care must be taken to insure that the top of conduits will be 48" below the bottom of drainage ditches and all other low areas.

6. Trench will be as straight as possible between vaults and shall have a smooth bottom free from low and high spots. Six inches of road base will be placed the entire length of the trench and well compacted prior to conduit installation. When placed in the trench, the conduit shall be in continuous contact with the compacted road base with no hold down weight added. Twelve inches of road base, as measured from the top of the conduit, will be placed on the conduit and well compacted prior to returning any native backfill to the trench. Large rocks shall not be placed directly on the road base layer. Care must be taken to avoid conduit damage during backfill and compaction; conduits found to be unusable at the time of power cable installation will be repaired by the developer or contractor before power can be made available.

7. Power facilities to be placed parallel to deeper utilities will have a horizontal separation from the deeper utility greater than the depth of such utility below final grade less four feet (see attached drawing). When crossing a deeper utility is unavoidable, the crossing will be made as close to perpendicular as possible.

8. Power line conduits will be installed with a minimum separation of 12" from all other new or existing underground utility lines. Wherever possible, this separation will be horizontal. The power line separation from plastic gas lines will be greater than this minimum wherever practicable. Power line conduits will be located deeper in the trench than the facilities of all other utilities unless the inspector grants a waiver prior to the start of construction.

9. Backfill and compaction above the road base layer will be as required by the governmental entity or other party having jurisdiction. Conduit bell ends will not be allowed in the vaults. Holy Cross Energy will supply factory couplers, 90°, 45°, and 22–1/2° elbows as needed for job. Non–factory bends and heated bends will not be allowed. No more than two 90° elbows will be allowed in a conduit run of 500 feet. The conduit shall run straight between factory bends. Allowed bends must be further than 5' from a vault. Factory elbows supplied must be used intact; they cannot be cut to make a lesser bend. Bells will not be cut off conduit sticks to use as couplers. Holy Cross Energy elbows and pipe will be used only for the power facility installation.

10. The conduit will not be backfilled without the Holy Cross Energy inspector seeing all joints unless the inspector gives prior permission. All joints shall be completely seated to the line marked on the male end of the conduit after sufficient glue is applied to both conduits being jointed, even in areas where the trench cannot be excavated completely straight. Glue in the joint shall be allowed to completely dry prior to any stress being applied to the conduit on either side of the joint. Trench backfilled without the inspector viewing each joint or giving prior permission to cover the conduit will be re–excavated to expose the conduit, or the contractor will put a camera through each conduit in the span which was prematurely backfilled to The camera verification will be witnessed by the Holy Cross Energy inspector. Verify the joint seating and conduit condition.

11. Individual conduits shall enter each vault at a consistent location. There is to be no crossing of conduits in the trench.

12. Both ends of a conduit run shall be securely plugged at the time of installation with Holy Cross Energy supplied material. Conduit ending outside a vault shall be marked with a 4" x 4" post or other approved method.

13. Red trench marking tape will be supplied by Holy Cross Energy and shall be installed 18" to 24" above the conduit during backfill.

14. At completion of the job, the inspector will do a final inspection. If the job does not meet with Holy Cross Energy's specifications or the approval of inspector, service will not be provided until specifications are met.

II. VAULTS.

1. Vaults shall be installed as follows:

   A. Splice vaults shall be installed with the manhole lid grade being slightly above final grade of the surrounding area, except when the vault is in a roadway, the manhole lid grade shall match the grade of the finished roadway surface.
   B. Splice vaults located in roads or other sloped areas will be installed so that the concrete base and lid are at the slope of the surrounding area. Vaults placed in roads will not be located in areas normally traversed by vehicle wheels. The inspector must approve all vaults installed at a slope.

   C. Transformer vaults and switchgear vaults will be installed with the bottom of the lid at final grade. The lid will be level.

   D. Where transformer and switchgear vaults are set into hillsides or sloped cuts, the downhill side of the vault will be graded according to C above. The slope behind the vault will be laid back sufficiently to prohibit soil or rocks from sloughing onto the vault. If the slope cannot be laid back far enough, a retaining wall shall be constructed behind the vault at the direction of the inspector.

   E. All vault pads will be placed on the vaults at the time of vault installation to protect the public and wildlife, unless otherwise instructed by the inspector. The holes through transformer and switchgear pads will be covered at the time of vault installation with concrete pieces supplied by Holy Cross Energy, unless otherwise instructed by the inspector.

   F. Large vault pieces shall be jointed with a tar type sealant provided by Holy Cross Energy, with the exception of the vault lid, at the direction of the inspector.

2. Holes knocked in vaults for conduit installation shall be as small as possible and shall be grouted closed on the outside of the vault prior to backfill.

3. Conduit shall enter vaults perpendicular to the vault wall, at least 2" from any adjacent walls and at least 2" above the vault base. There shall be a minimum separation of 1" between conduits. See vault drawings.

4. Conduit will extend 4" into the vault (measured from the inside wall of the vault) after backfilling is complete.

5. Ground rods in vaults for underground cable installation shall be laid in the trench with the conduits. The end of the rod shall extend approximately 6" into the vault through the conduit knockout. The rod will have a 45° bend located approximately 3" from the vault end, with the bend going away from the conduits. The bent end of the rod must be far enough from the vault wall to allow crimping the grounding conductor onto the rod. The rod must be at least 2" from the conduit at its entrance into the vault. See vault drawings.

6. After the vault has been set, pipes extended in and grouted and the ground rod is in place, vaults shall be swept out removing all dirt or rocks. Cleanup shall be completed to the satisfaction of the inspector prior to cable installation being scheduled.

7. Pedestals for other utilities shall not be located closer than 10' to a vault on sides where transformers or switchgear will have access doors. Pedestals shall not be located closer than 5' to a vault on sides where the pad–mounted equipment will not have access doors.

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MATTHEW C. WEAVER
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PROFESSIONAL ENGINEER

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CIVIL NOTES

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	09/14/2018	FOR AGENCY REVIEW	
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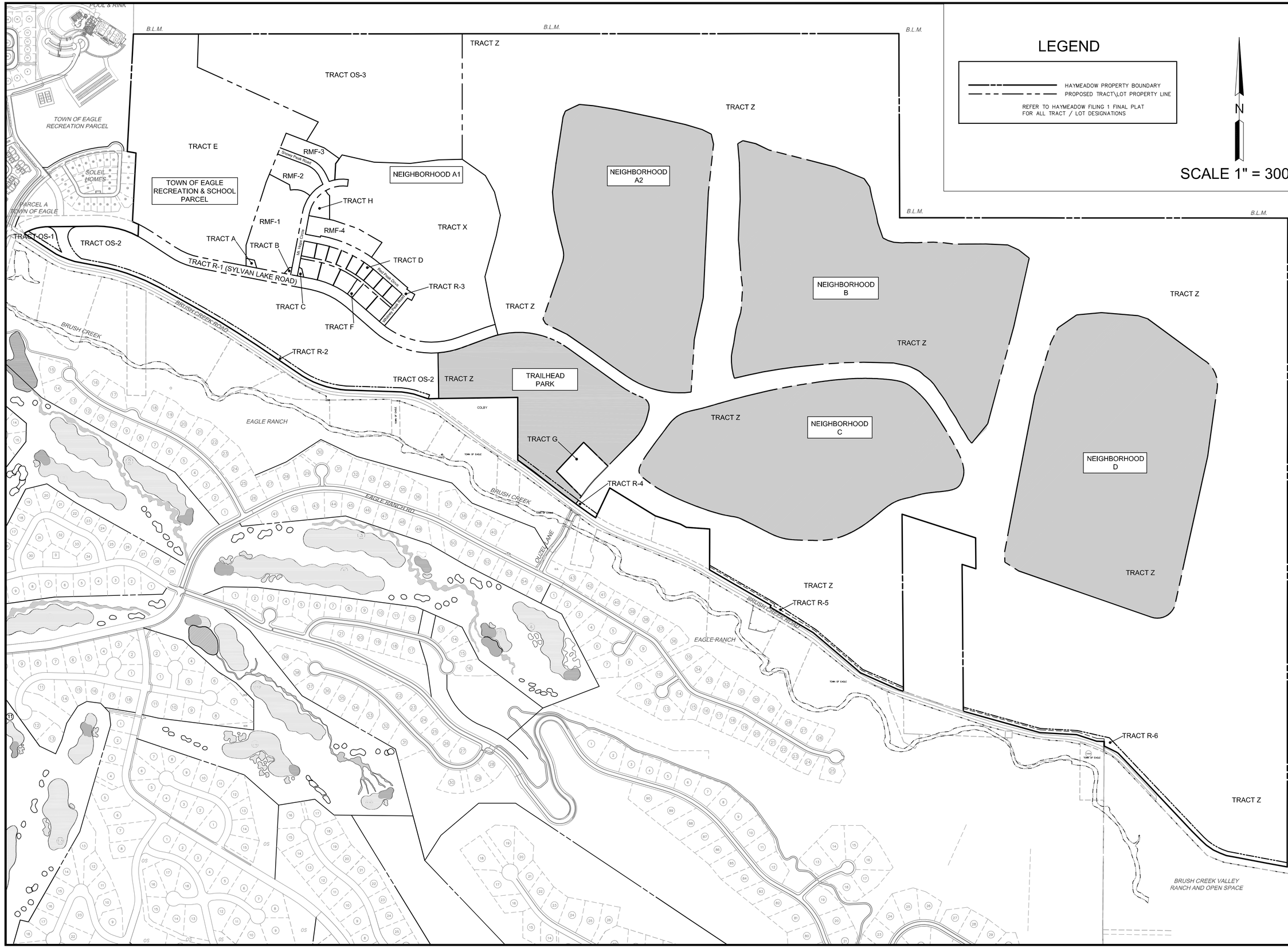

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MATTHEW C. WIGHT
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7-8-19

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OVERALL DEVELOPMENT PLAN

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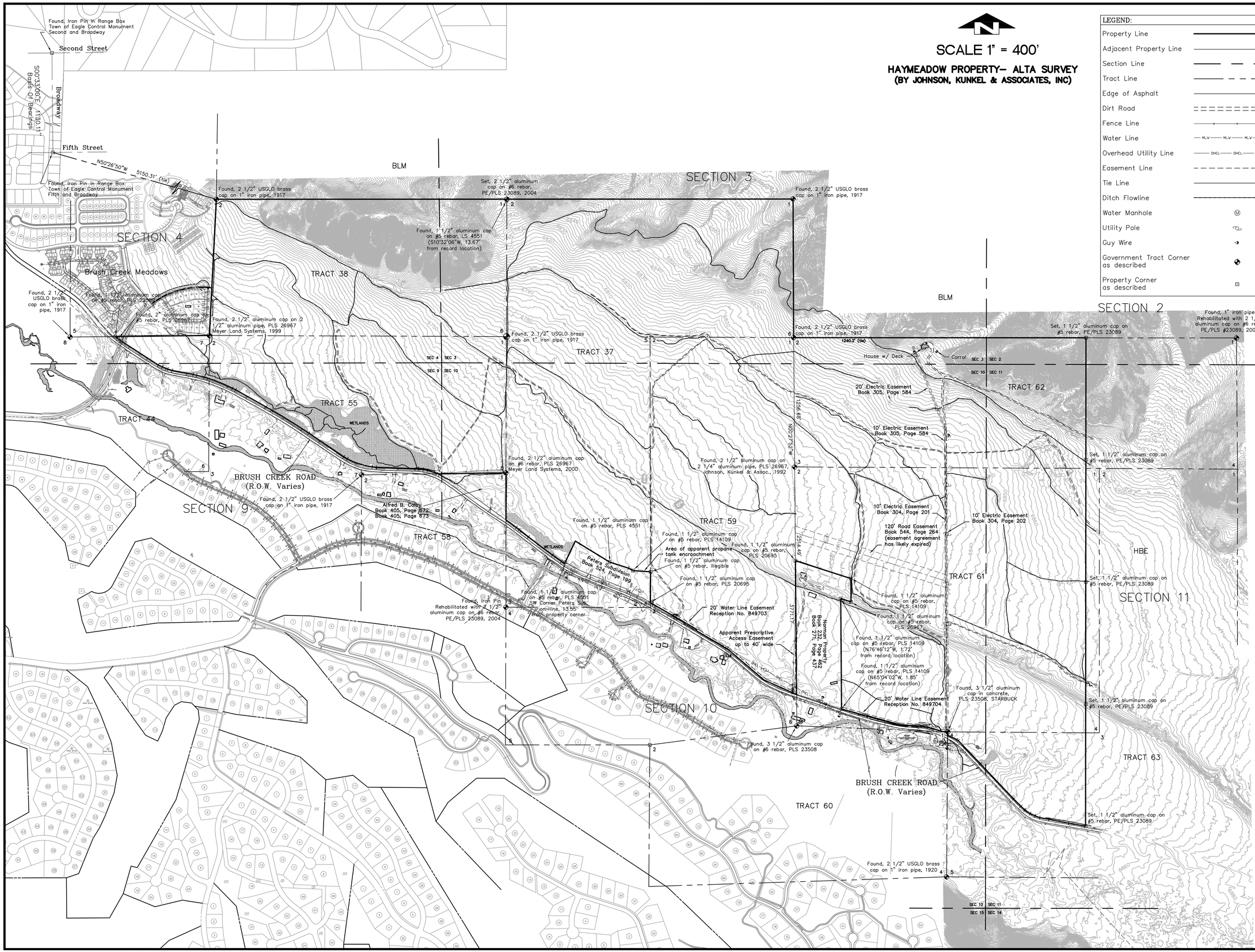
SCALE 1" = 400'

HAYMEADOW PROPERTY– ALTA SURVEY
(BY JOHNSON, KUNKEL & ASSOCIATES, INC)



LEGEND:

- Property Line
- Adjacent Property Line
- Section Line
- Tract Line
- Edge of Asphalt
- Dirt Road
- Fence Line
- Water Line (M.V)
- Overhead Utility Line (OHEL)
- Easement Line
- Tie Line
- Ditch Flowline
- Water Manhole
- Utility Pole
- Guy Wire
- Government Tract Corner as described
- Property Corner as described

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EXISTING CONDITIONS PLAN

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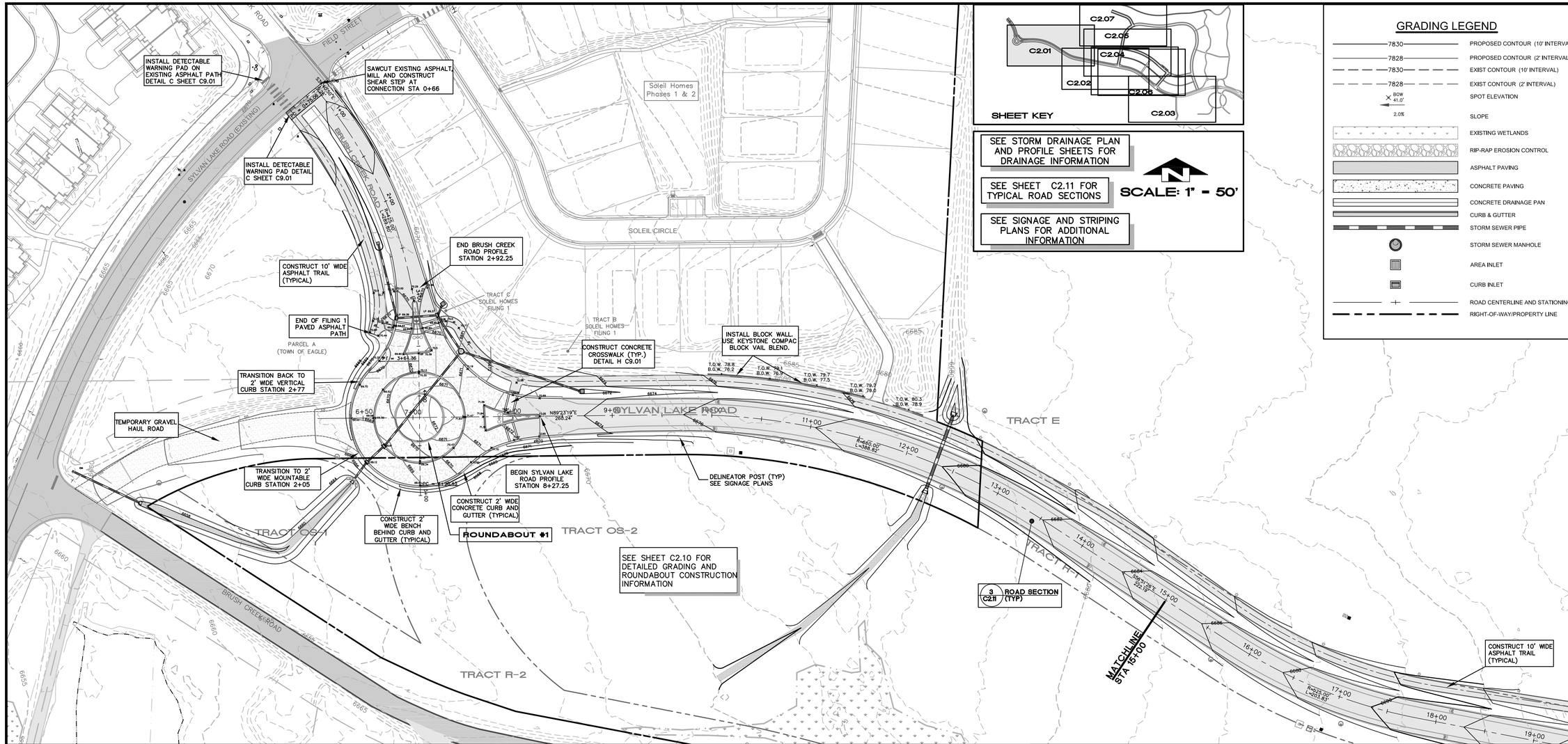

GRADING LEGEND

- 7830 — PROPOSED CONTOUR (10' INTERVAL)
- 7828 — PROPOSED CONTOUR (2' INTERVAL)
- 7830 — EXIST CONTOUR (10' INTERVAL)
- 7828 — EXIST CONTOUR (2' INTERVAL)
- BOW 41.0' — SPOT ELEVATION
- 2.0% — SLOPE
- EXISTING WETLANDS
- RIP-RAP EROSION CONTROL
- ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE DRAINAGE PAN
- CURB & GUTTER
- STORM SEWER PIPE
- STORM SEWER MANHOLE
- AREA INLET
- CURB INLET
- ROAD CENTERLINE AND STATIONING
- RIGHT-OF-WAY/PROPERTY LINE

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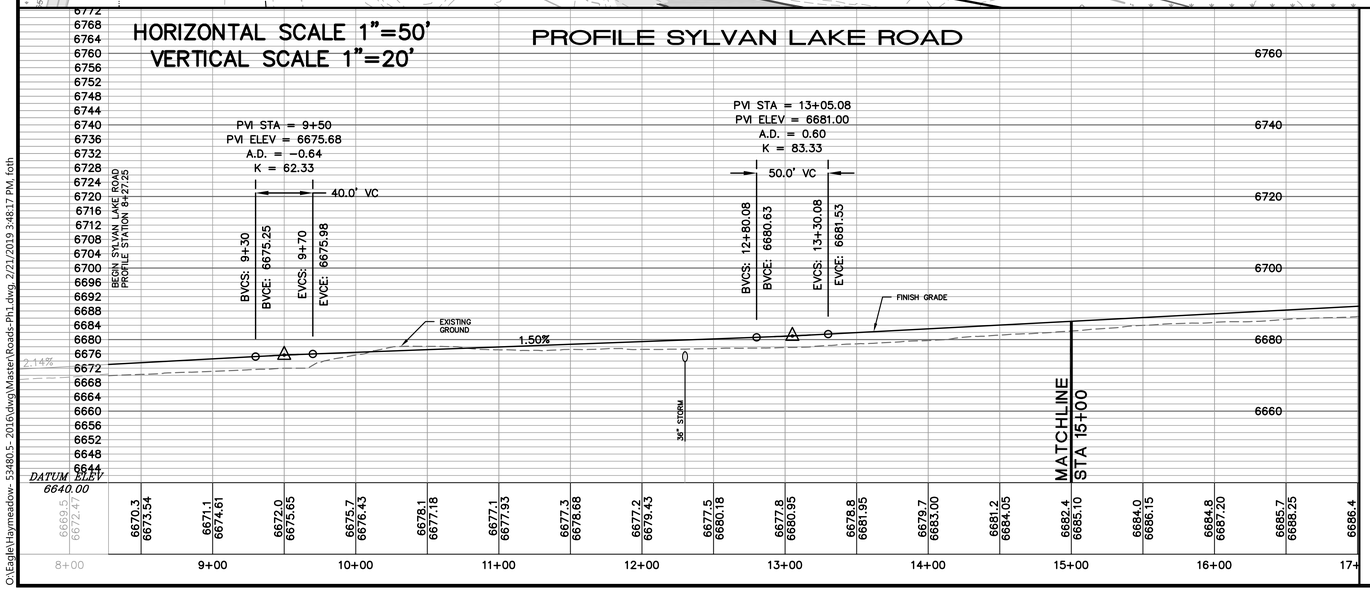
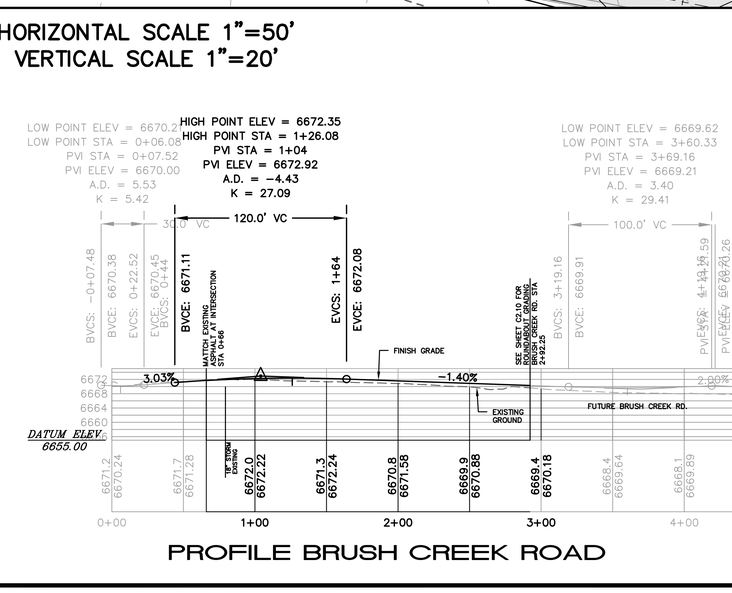
ROAD PLAN AND PROFILES





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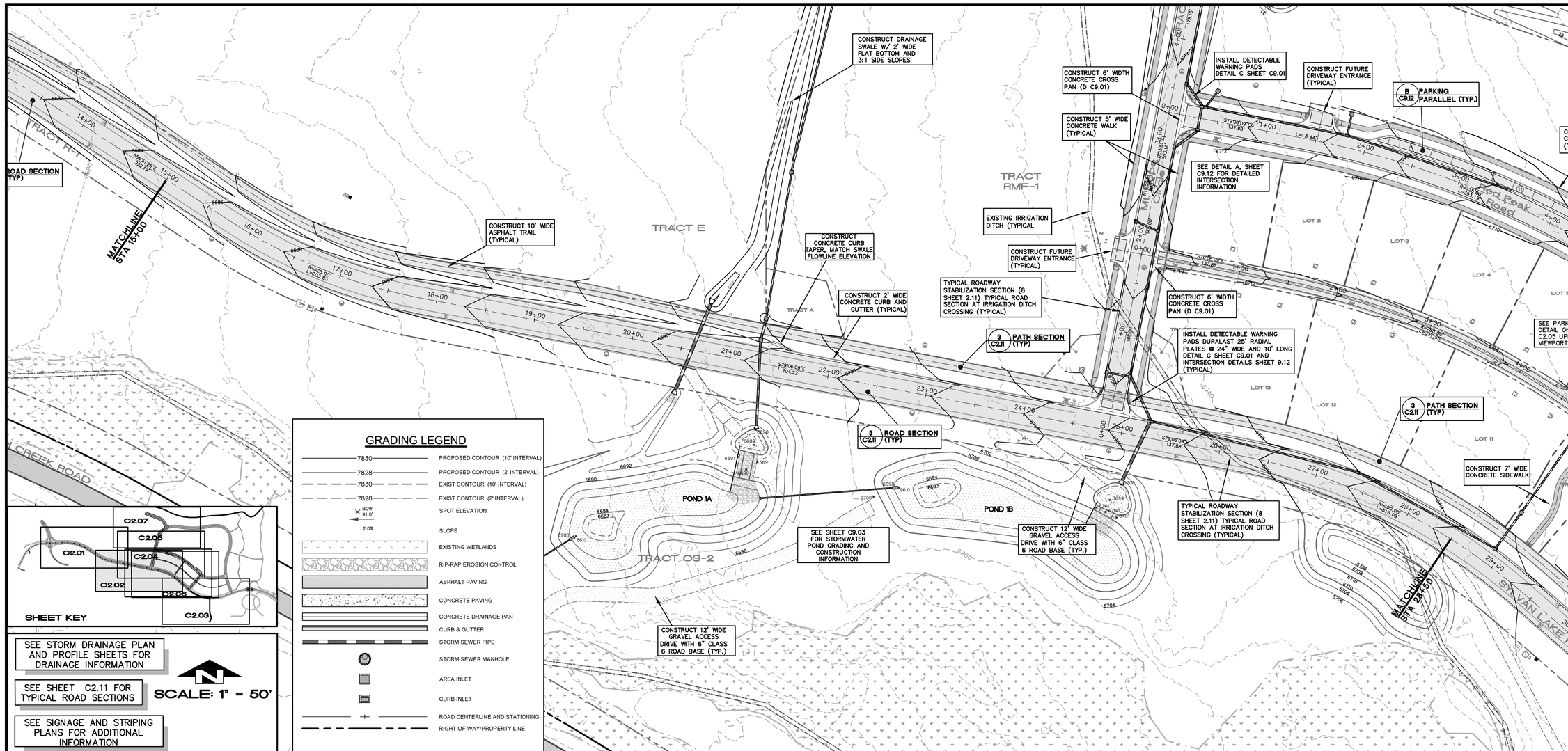

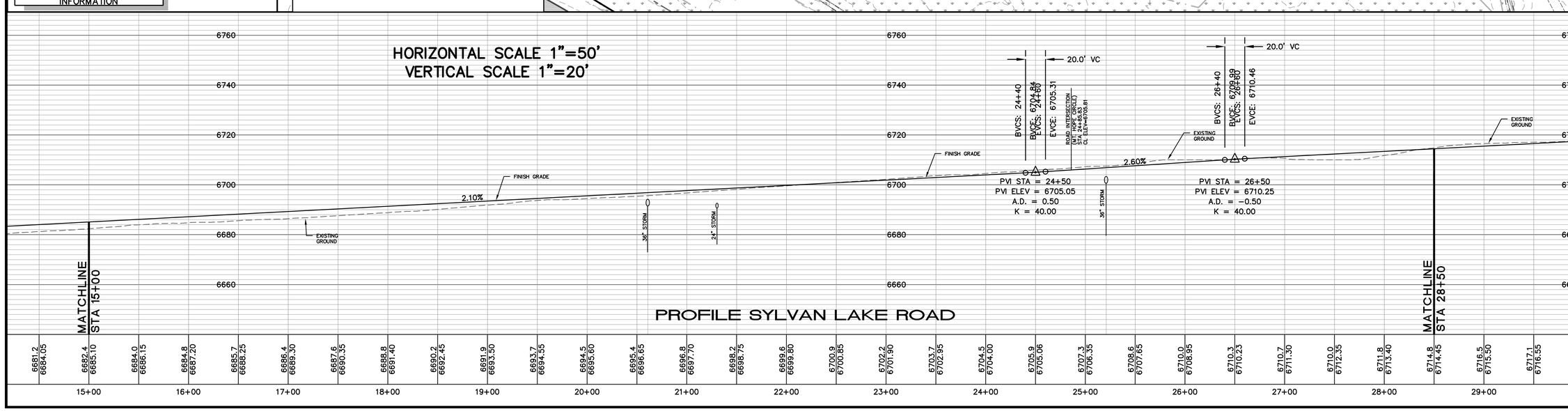

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COLORADO LICENSED
MATTHEW C. WEAVER
11-8-18
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

ROAD PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.02

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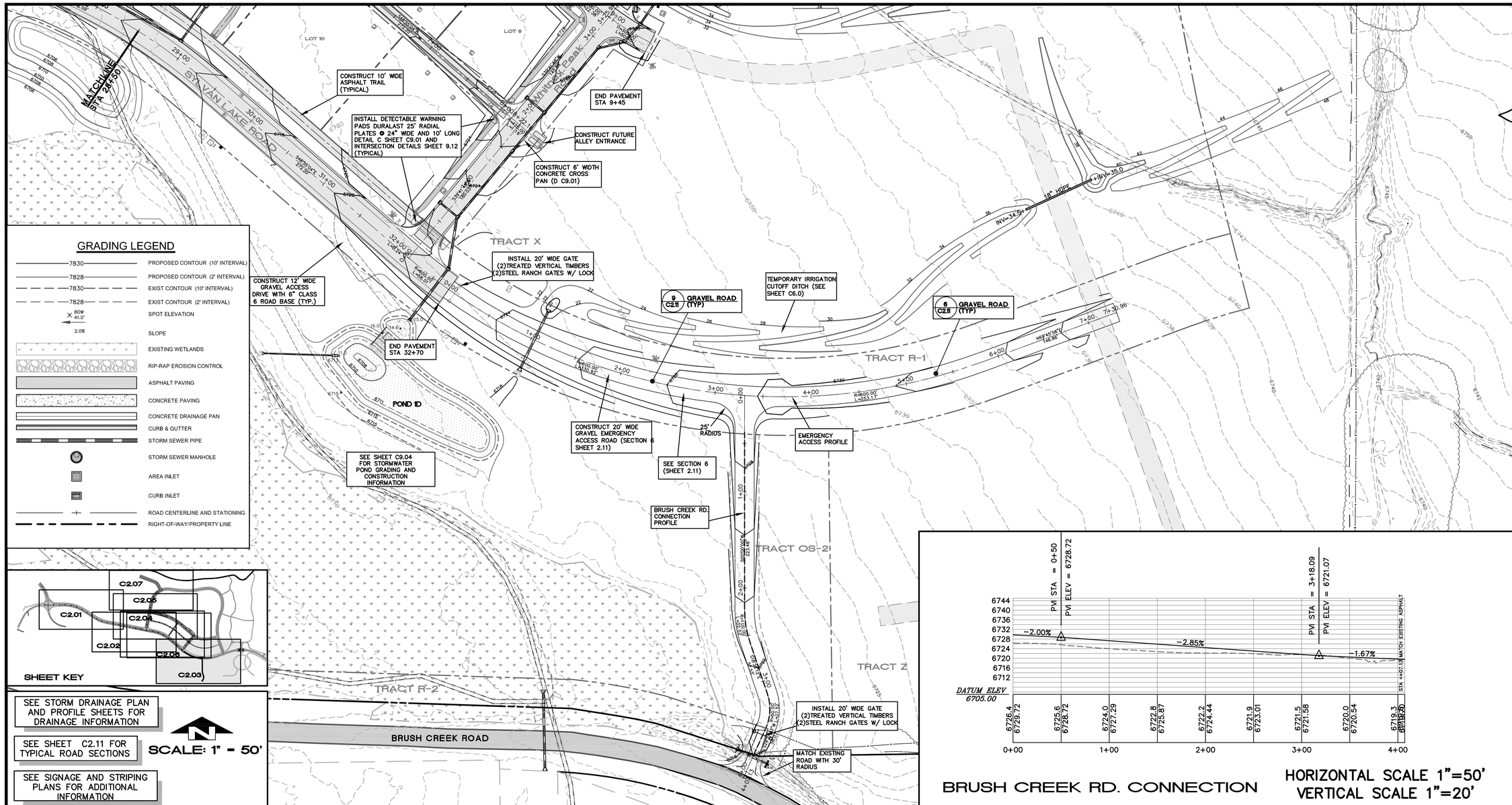


GRADING LEGEND

- 7830 — PROPOSED CONTOUR (10' INTERVAL)
- 7828 — PROPOSED CONTOUR (2' INTERVAL)
- 7830 — EXIST CONTOUR (10' INTERVAL)
- 7828 — EXIST CONTOUR (2' INTERVAL)
- BOW 41.0' — SPOT ELEVATION
- 2.0% — SLOPE
- EXISTING WETLANDS
- RIP-RAP EROSION CONTROL
- ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE DRAINAGE PAN
- CURB & GUTTER
- STORM SEWER PIPE
- STORM SEWER MANHOLE
- AREA INLET
- CURB INLET
- ROAD CENTERLINE AND STATIONING
- RIGHT-OF-WAY/PROPERTY LINE

SHEET KEY

SEE STORM DRAINAGE PLAN AND PROFILE SHEETS FOR DRAINAGE INFORMATION

SEE SHEET C2.11 FOR TYPICAL ROAD SECTIONS

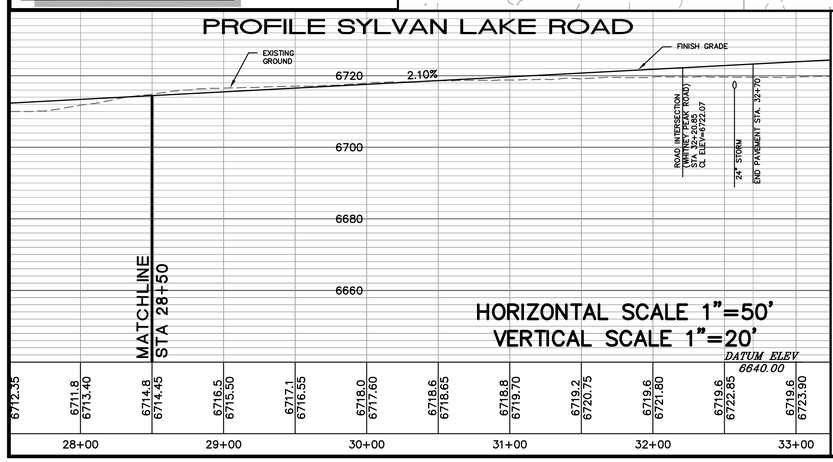
SEE SIGNAGE AND STRIPING PLANS FOR ADDITIONAL INFORMATION

N

SCALE: 1" = 50'

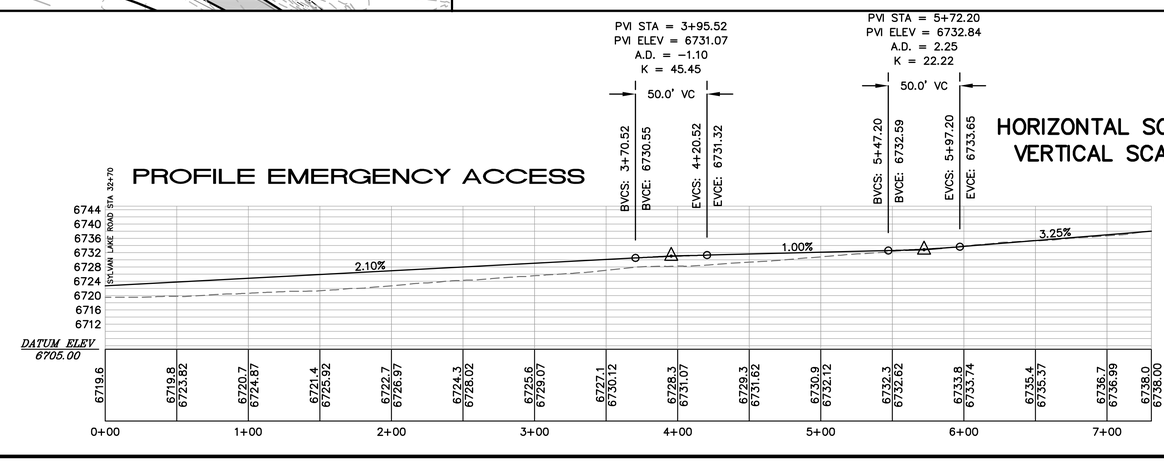
BRUSH CREEK RD. CONNECTION

HORIZONTAL SCALE 1"=50'
VERTICAL SCALE 1"=20'



PROFILE SYLVAN LAKE ROAD

HORIZONTAL SCALE 1"=50'
VERTICAL SCALE 1"=20'



PROFILE EMERGENCY ACCESS

HORIZONTAL SCALE 1"=50'
VERTICAL SCALE 1"=20'

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COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. WEAVER 11-8-19 39865

HAYMEADOW FILING 1

ROAD PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.03

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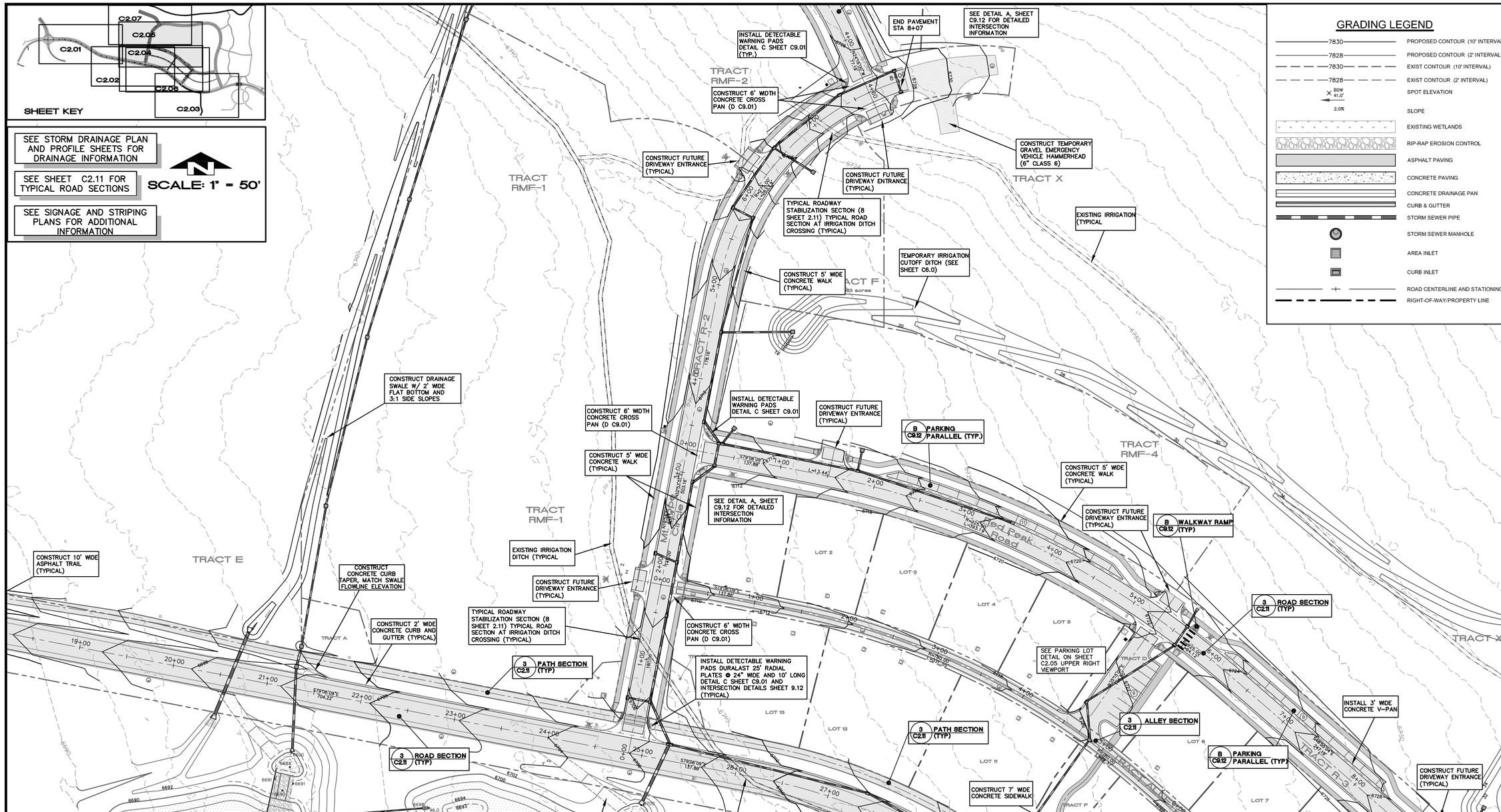

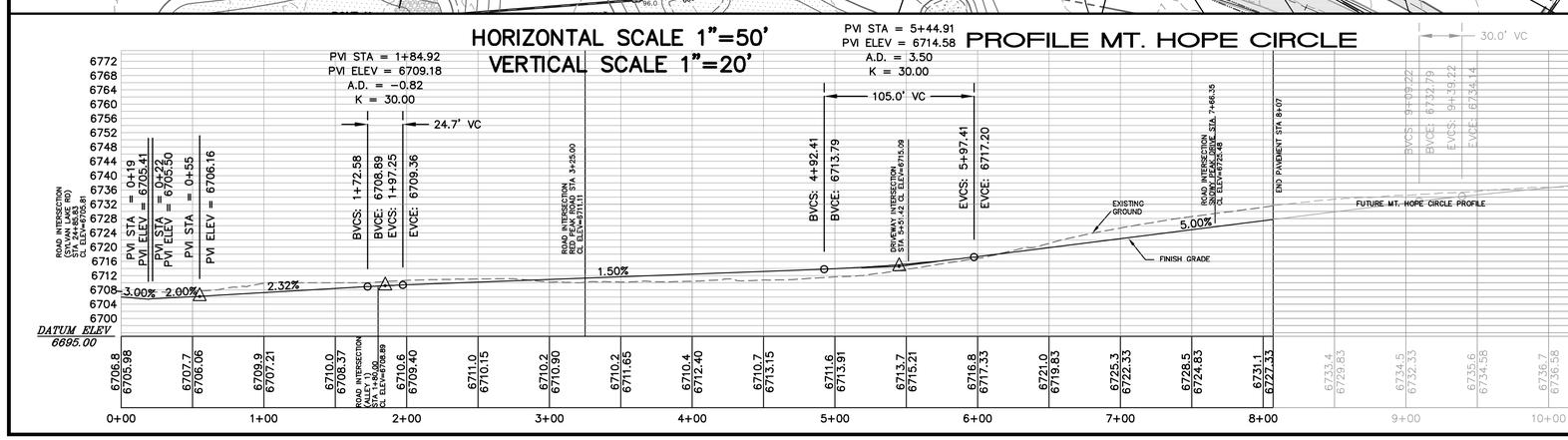

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11-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

ROAD PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.04

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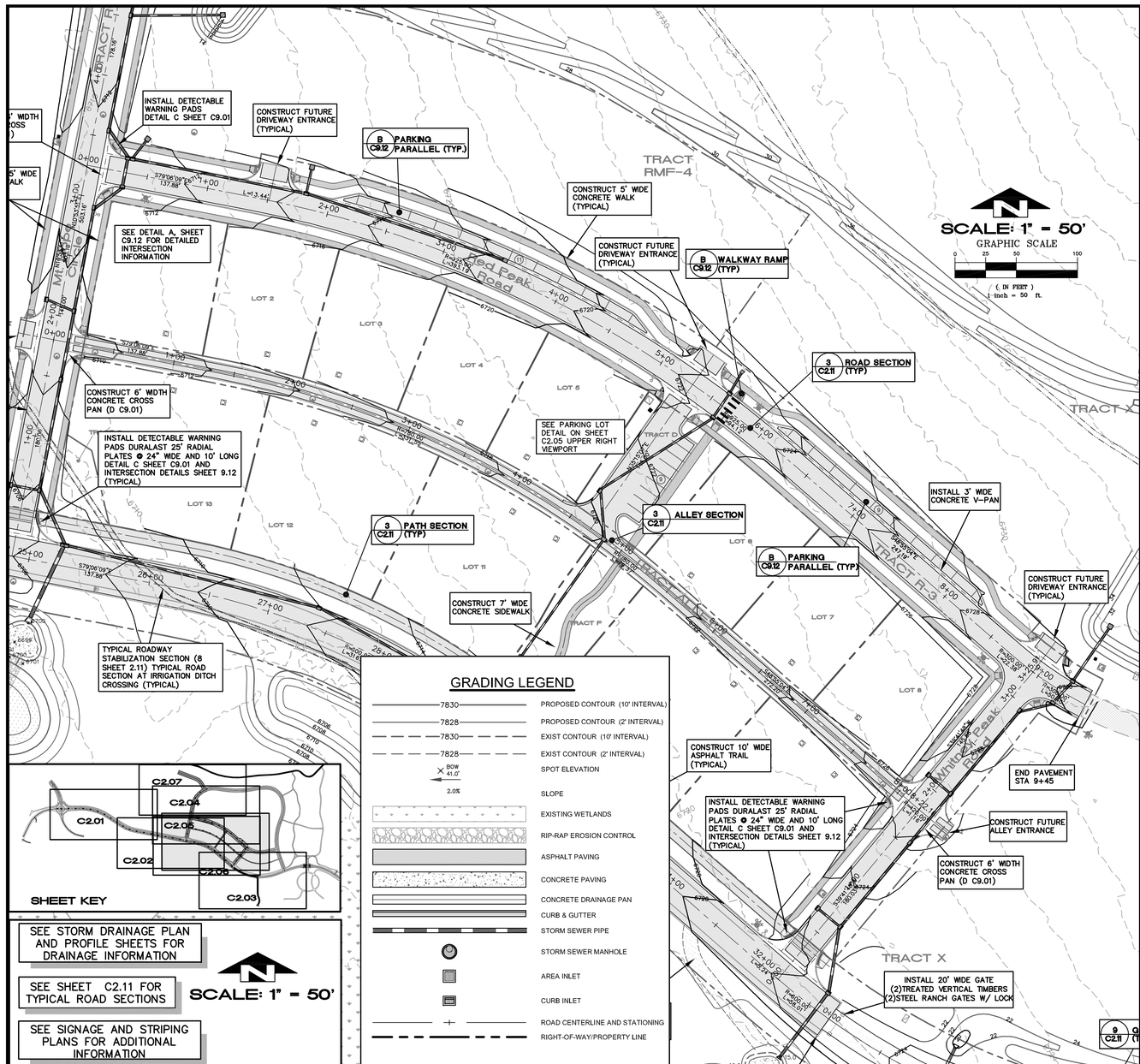


SEE STORM DRAINAGE PLAN AND PROFILE SHEETS FOR DRAINAGE INFORMATION

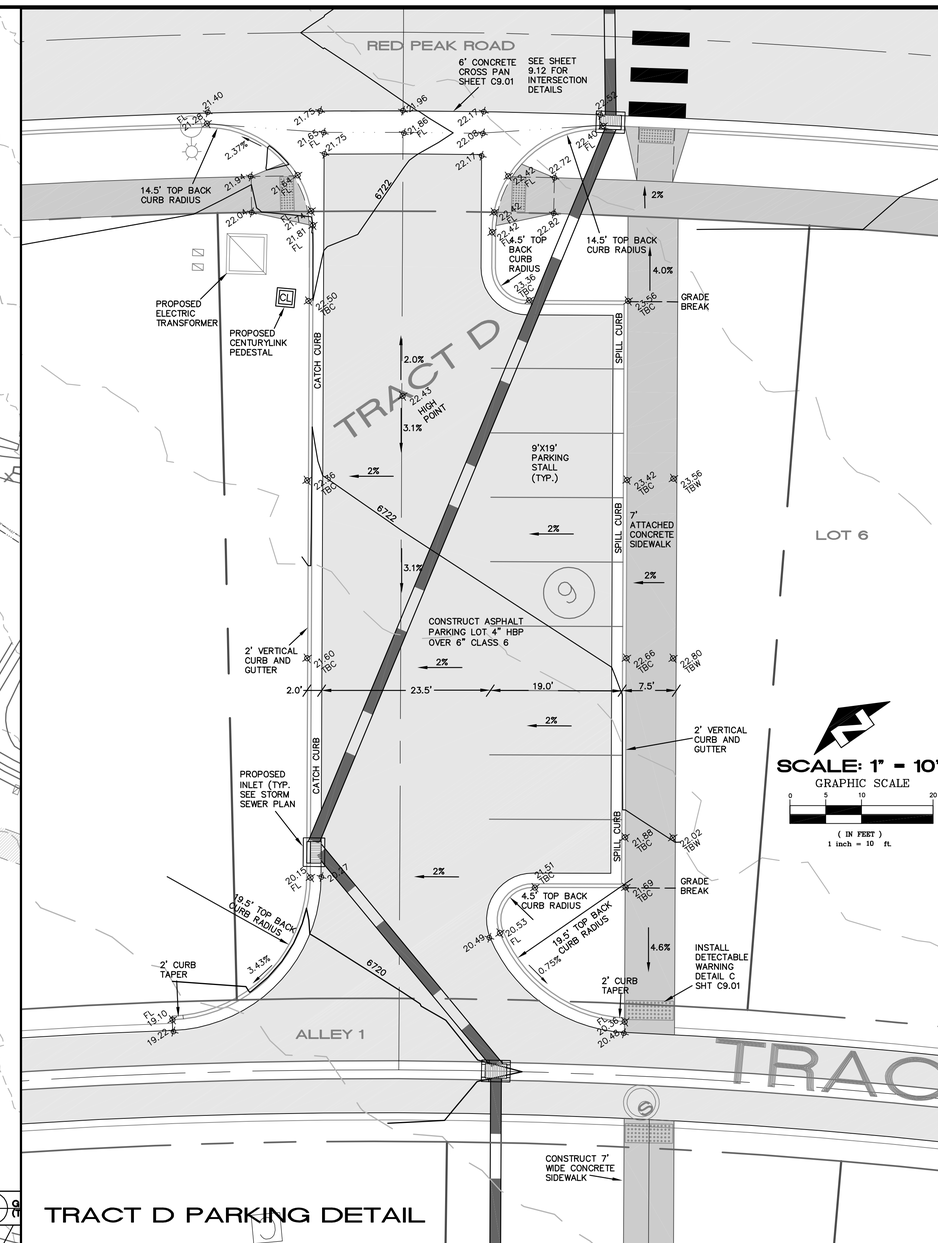
SEE SHEET C2.11 FOR TYPICAL ROAD SECTIONS

SCALE: 1" = 50'

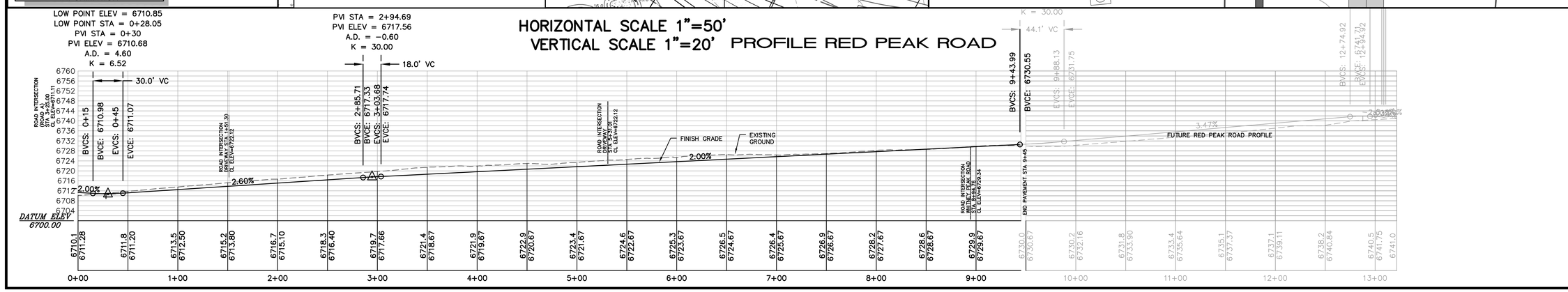
SEE SIGNAGE AND STRIPING PLANS FOR ADDITIONAL INFORMATION

GRADING LEGEND

7830	PROPOSED CONTOUR (10' INTERVAL)
7828	PROPOSED CONTOUR (2' INTERVAL)
7830	EXIST CONTOUR (10' INTERVAL)
7828	EXIST CONTOUR (2' INTERVAL)
BOW 41.0'	SPOT ELEVATION
2.0%	SLOPE
	EXISTING WETLANDS
	RIP-RAP EROSION CONTROL
	ASPHALT PAVING
	CONCRETE PAVING
	CONCRETE DRAINAGE PAN
	CURB & GUTTER
	STORM SEWER PIPE
	STORM SEWER MANHOLE
	AREA INLET
	CURB INLET
	ROAD CENTERLINE AND STATIONING
	RIGHT-OF-WAY/PROPERTY LINE



TRACT D PARKING DETAIL



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MATTHEW C. WEIER
11-8-18
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PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

ROAD PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	534480.5
DATE	02/20/2019

SHEET C2.05

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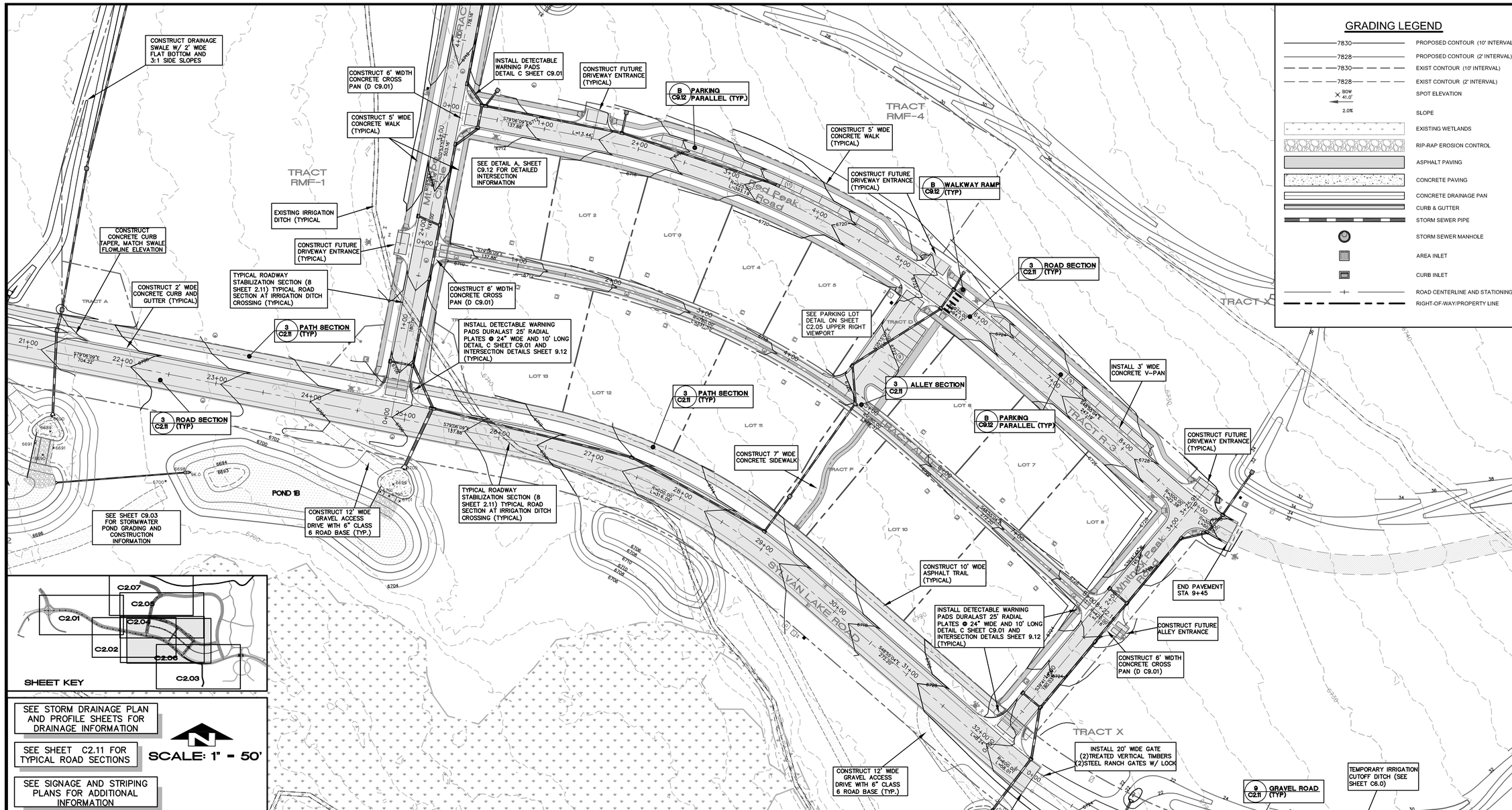

GRADING LEGEND

- 7830 — PROPOSED CONTOUR (10' INTERVAL)
- 7828 — PROPOSED CONTOUR (2' INTERVAL)
- 7830 — EXIST CONTOUR (10' INTERVAL)
- 7828 — EXIST CONTOUR (2' INTERVAL)
- BOW 41.0' — SPOT ELEVATION
- 2.0% — SLOPE
- EXISTING WETLANDS
- RIP-RAP EROSION CONTROL
- ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE DRAINAGE PAN
- CURB & GUTTER
- STORM SEWER PIPE
- STORM SEWER MANHOLE
- AREA INLET
- CURB INLET
- ROAD CENTERLINE AND STATIONING
- RIGHT-OF-WAY/PROPERTY LINE

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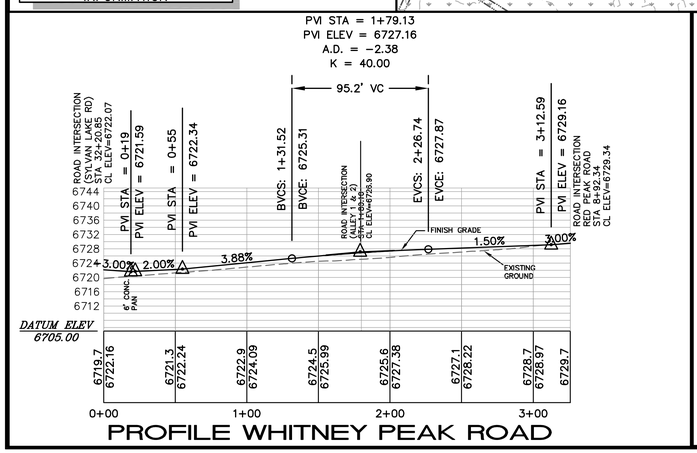
MATTHEW C. WHITE
11-8-18
39865
PROFESSIONAL ENGINEER

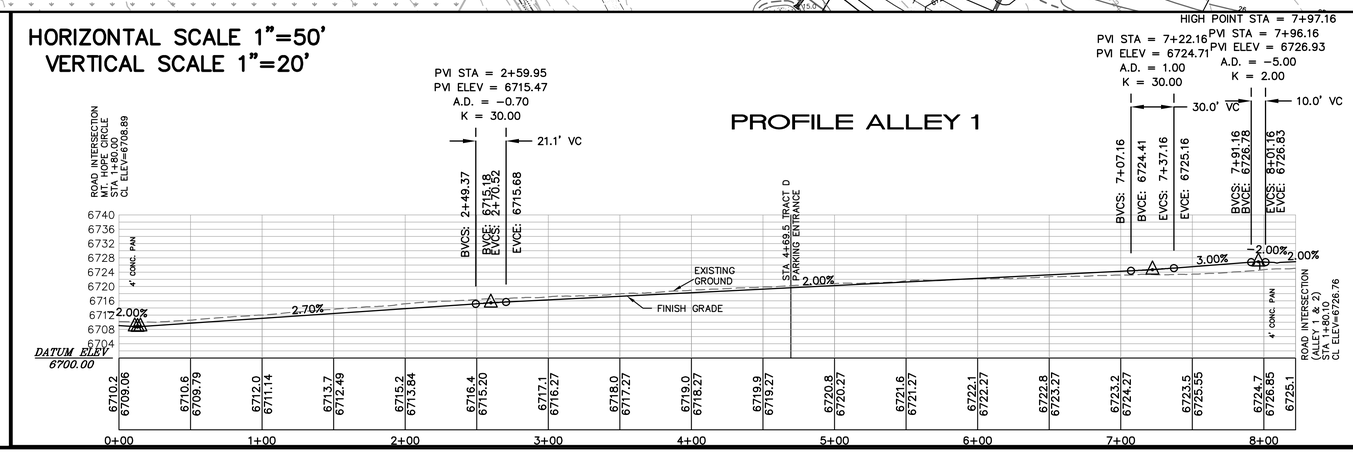
HAYMEADOW FILING 1

ROAD PLAN AND PROFILES



PROFILE WHITNEY PEAK ROAD

HORIZONTAL SCALE 1"=50'
VERTICAL SCALE 1"=20'



PROFILE ALLEY 1

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.06

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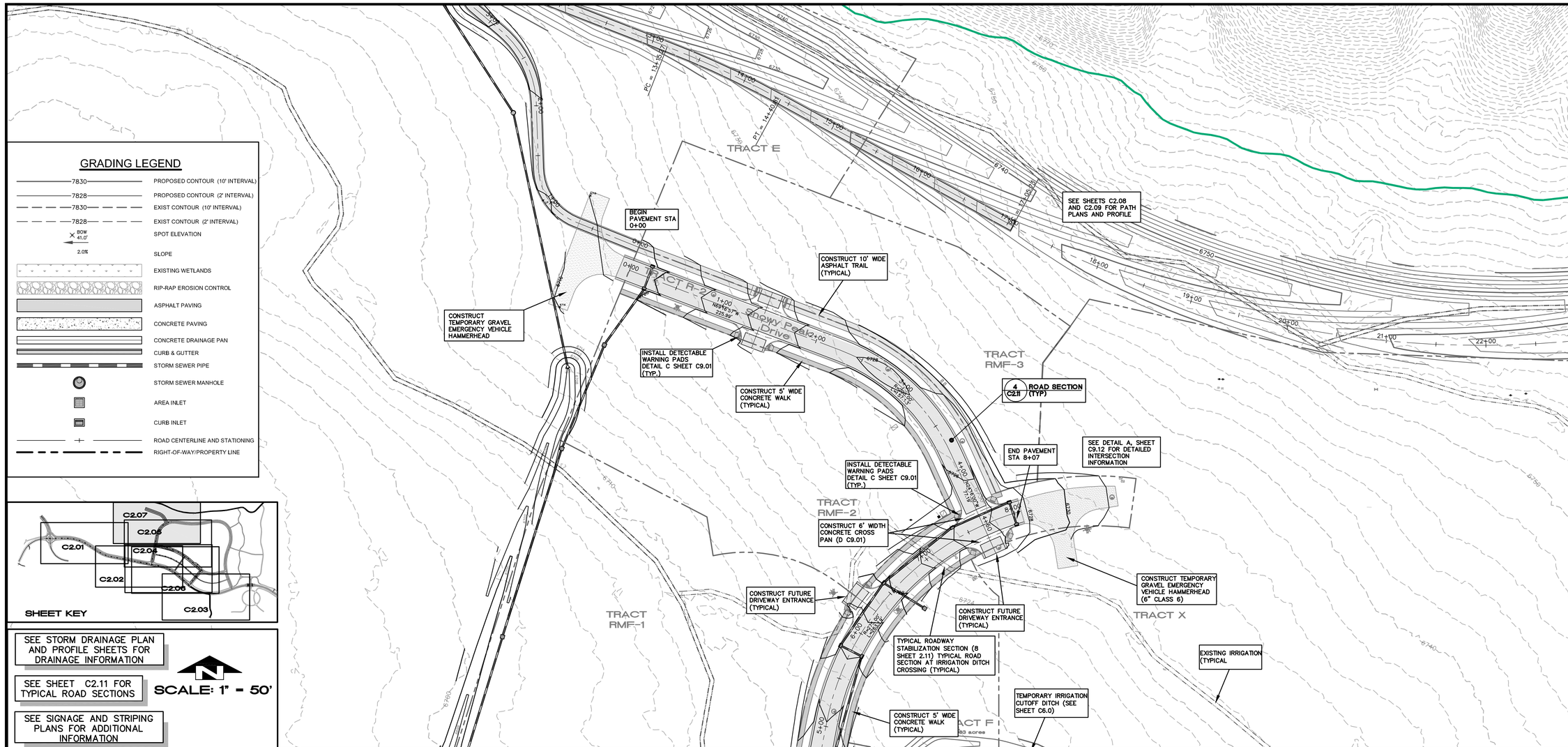
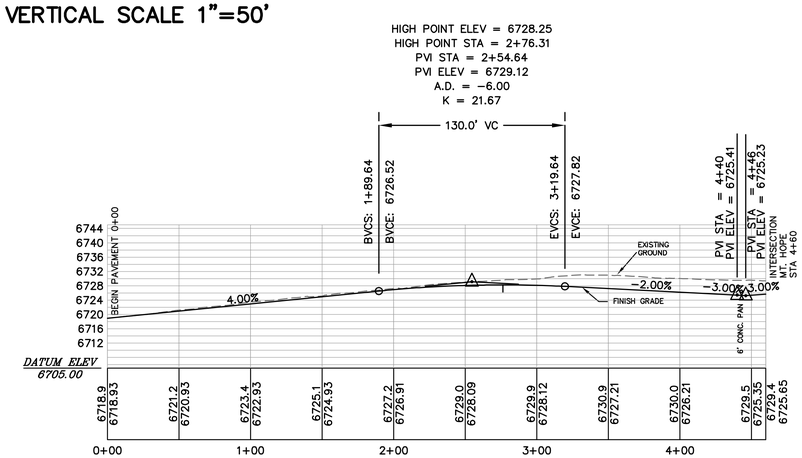


HORIZONTAL SCALE 1"=50'
VERTICAL SCALE 1"=50'



SNOWY PEAK DRIVE

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11-8-18
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HAYMEADOW FILING 1

ROAD PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.07

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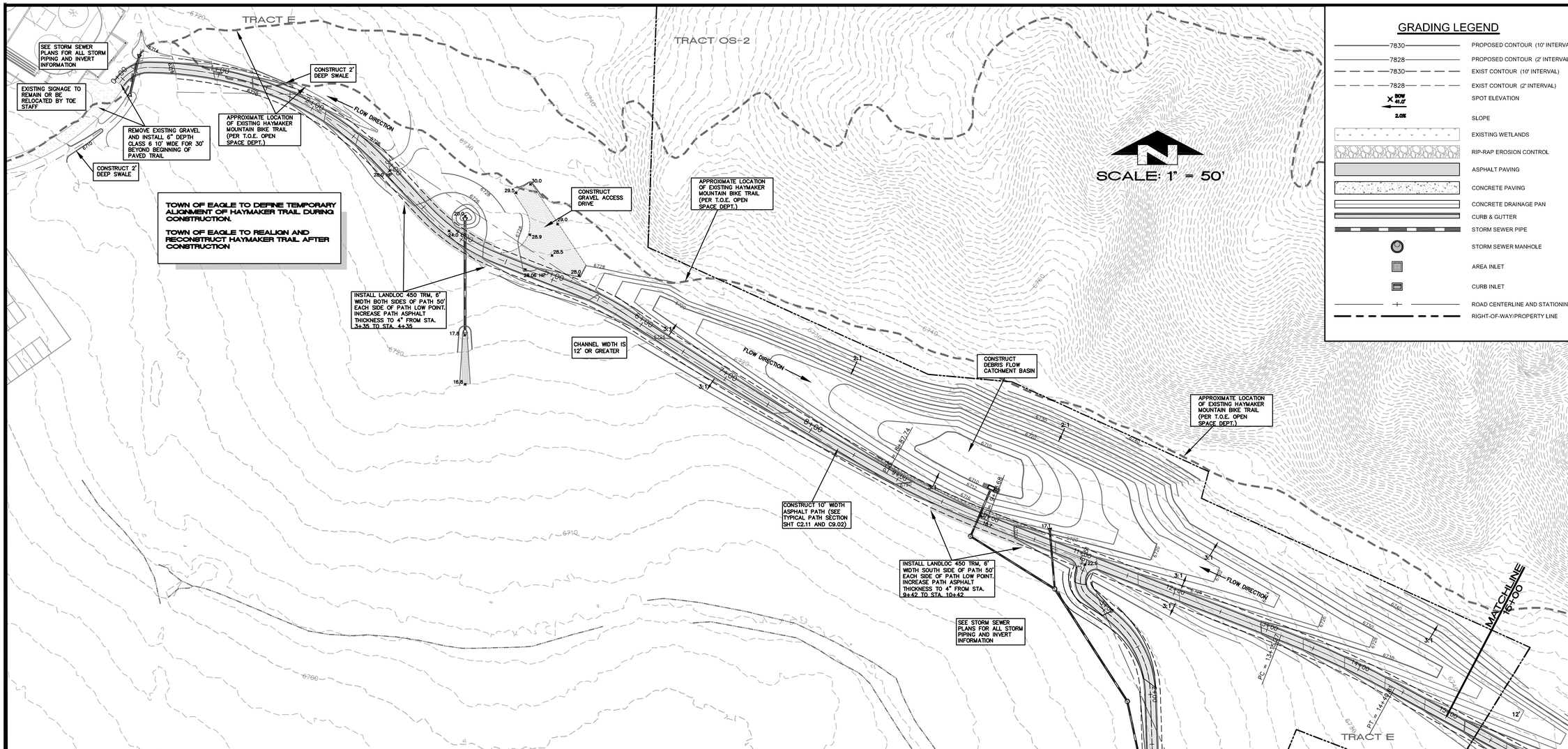

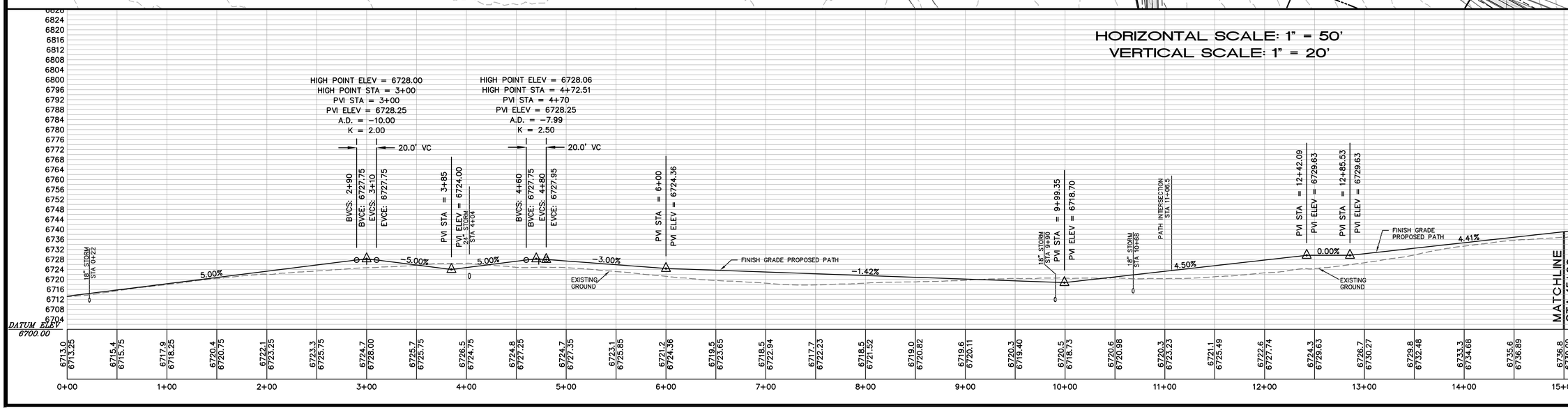

ALPINE ENGINEERING INC.
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EDWARDS CO 81632 / 970.926.3373
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COLORADO LICENSED
MATTHEW C. LEE
7-9-18
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1
RECREATION PATH AND DEBRIS FLOW CHANNEL PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.08

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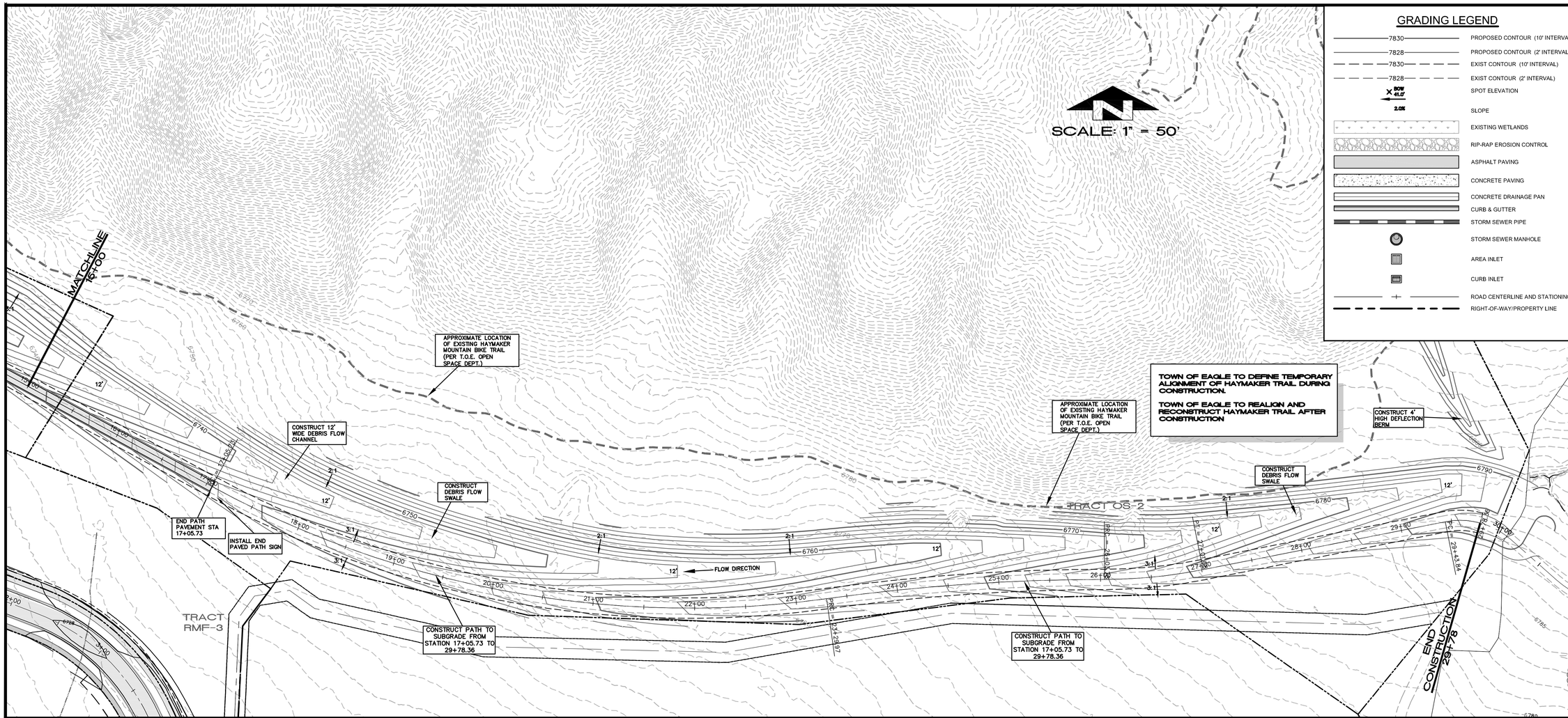
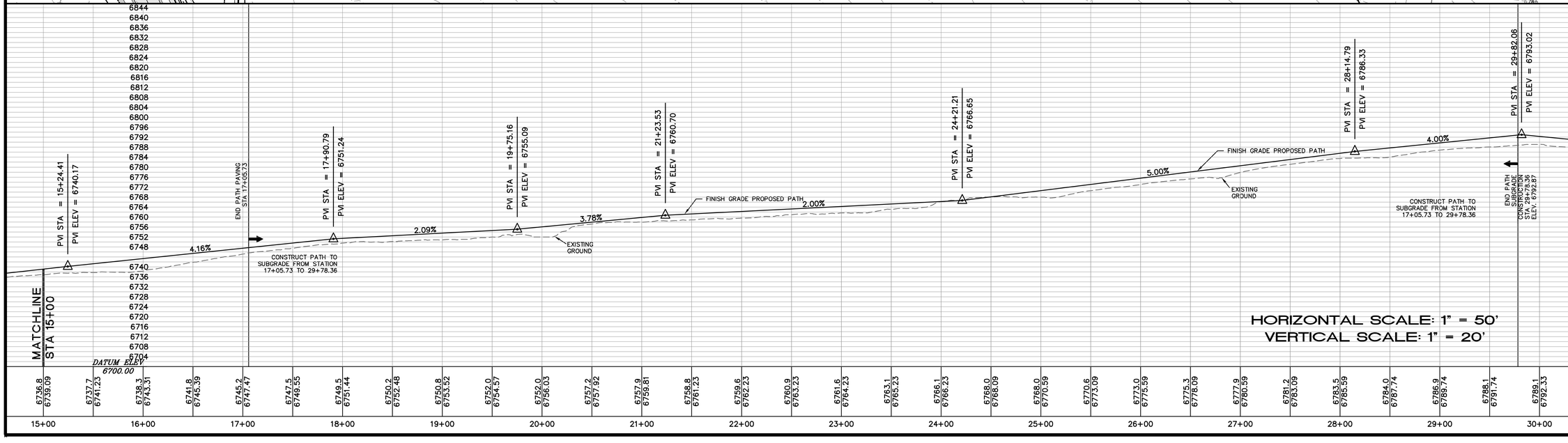


GRADING LEGEND

- 7830 — PROPOSED CONTOUR (10' INTERVAL)
- 7828 — PROPOSED CONTOUR (2' INTERVAL)
- 7830 — EXIST CONTOUR (10' INTERVAL)
- 7828 — EXIST CONTOUR (2' INTERVAL)
- SPOT ELEVATION
- SLOPE
- EXISTING WETLANDS
- RIP-RAP EROSION CONTROL
- ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE DRAINAGE PAN
- CURB & GUTTER
- STORM SEWER PIPE
- STORM SEWER MANHOLE
- AREA INLET
- CURB INLET
- ROAD CENTERLINE AND STATIONING
- RIGHT-OF-WAY/PROPERTY LINE



ALPINE ENGINEERING INC.
345 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
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COLORADO LICENSED
MATTHEW C. WOLF
7-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1
RECREATION PATH AND DEBRIS FLOW CHANNEL PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.09

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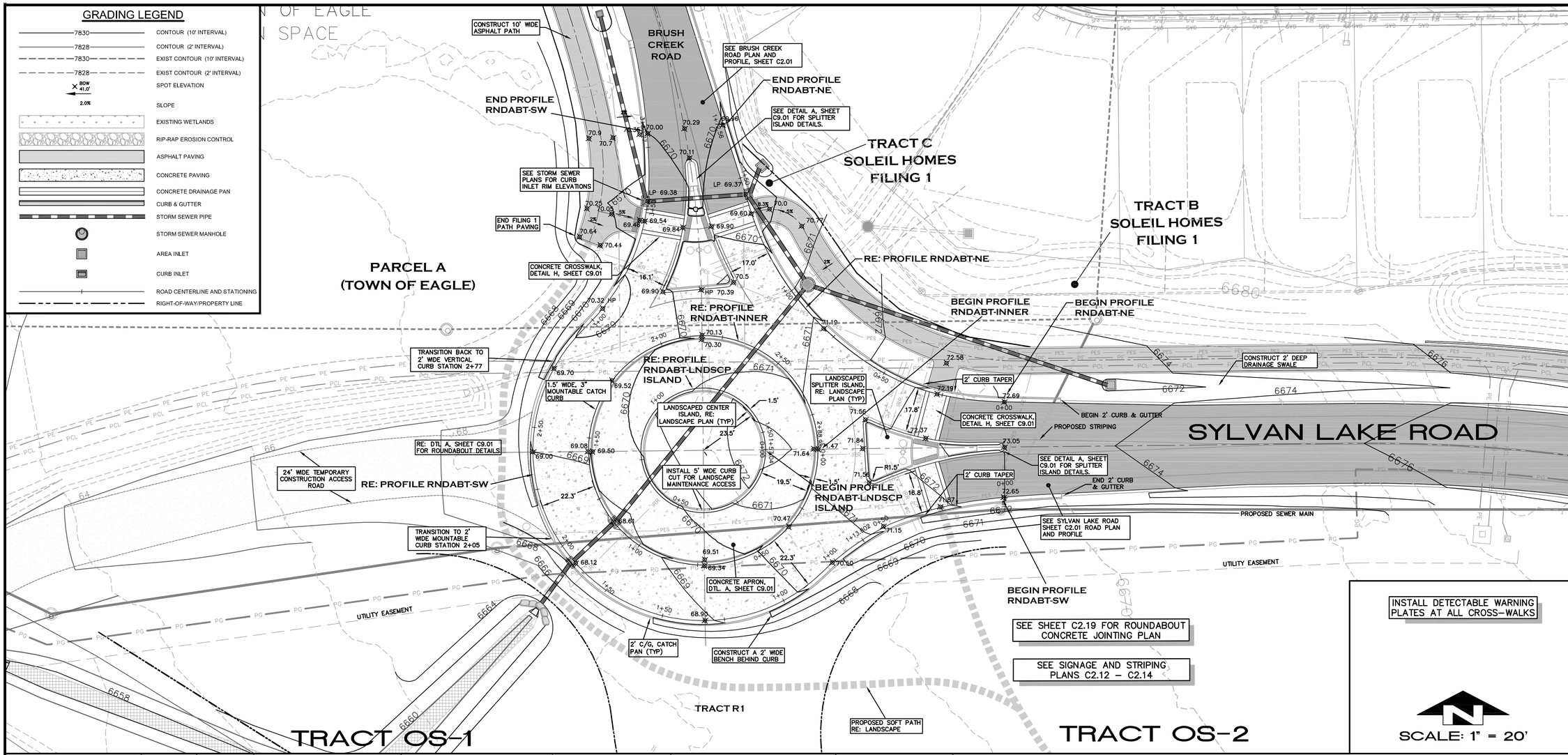
GRADING LEGEND

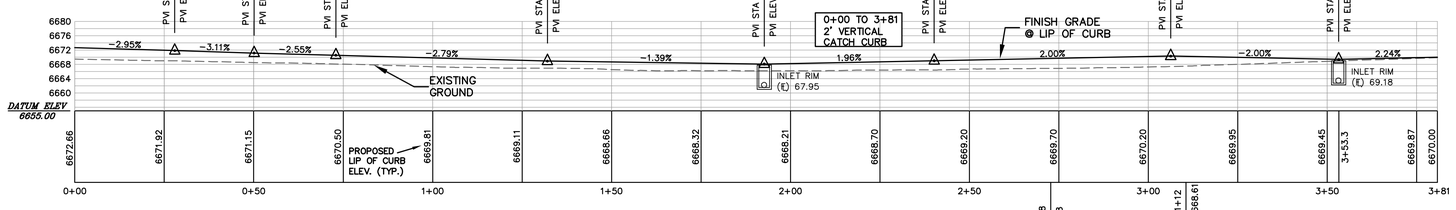
7830	CONTOUR (10' INTERVAL)
7828	CONTOUR (2' INTERVAL)
7830	EXIST CONTOUR (10' INTERVAL)
7828	EXIST CONTOUR (2' INTERVAL)
BOW 41.0'	SPOT ELEVATION
2.0%	SLOPE
	EXISTING WETLANDS
	RIP-RAP EROSION CONTROL
	ASPHALT PAVING
	CONCRETE PAVING
	CONCRETE DRAINAGE PAN
	CURB & GUTTER
	STORM SEWER PIPE
	STORM SEWER MANHOLE
	AREA INLET
	CURB INLET
	ROAD CENTERLINE AND STATIONING
	RIGHT-OF-WAY/PROPERTY LINE



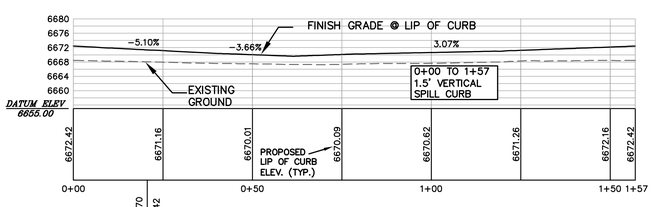
INSTALL DETECTABLE WARNING PLATES AT ALL CROSS-WALKS

SCALE: 1" = 20'

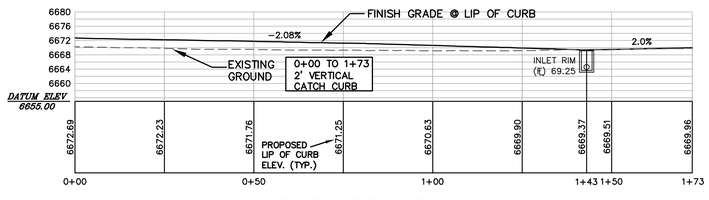
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'



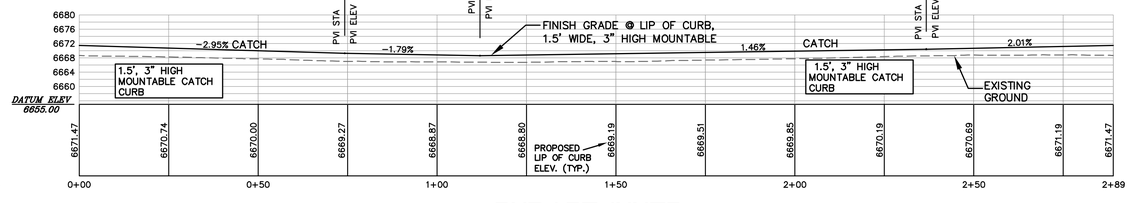
RNDABT-SW



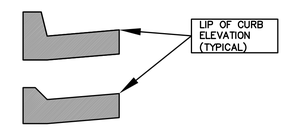
RNDABT-LNDSCP ISLAND



RNDABT-NE



RNDABT-INNER



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COLORADO LICENSED
MATTHEW C. WEIGEL
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

SYLVAN LAKE RD. / BRUSH CREEK RD.
ROUNDABOUT CURB PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.10

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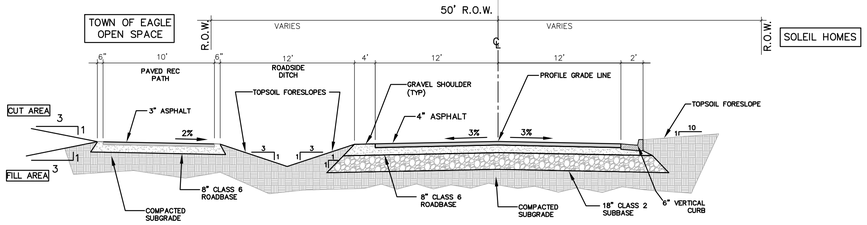
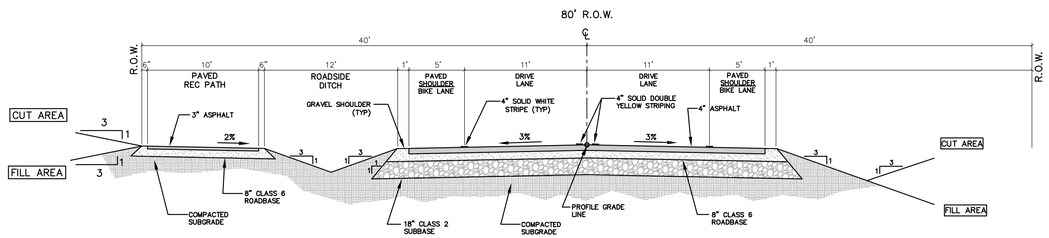
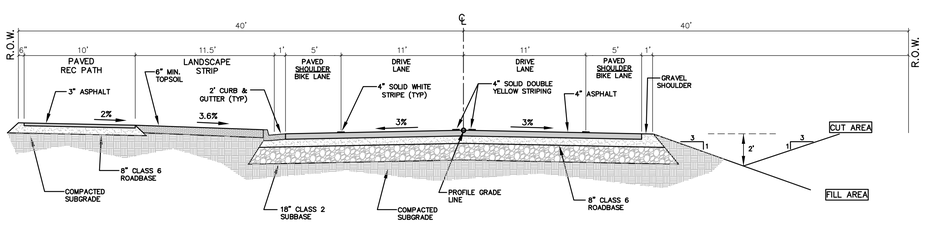


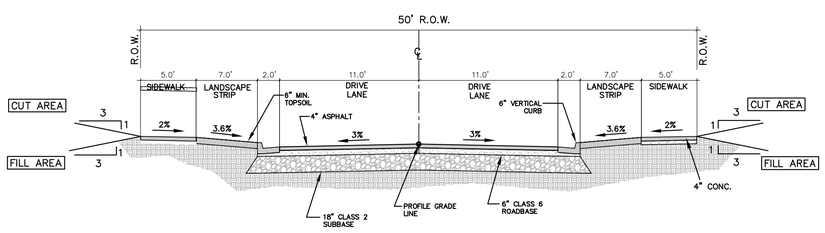
1 BRUSH CREEK ROAD



2 SYLVAN LAKE ROAD



3 SYLVAN LAKE ROAD

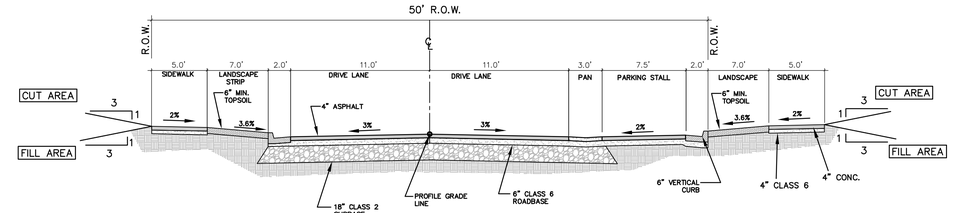


4 LOCAL ROAD W/ CURB, GUTTER & SIDEWALKS

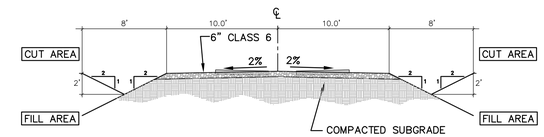
SECTION	ROAD NAME	STATION
1	BRUSH CREEK ROAD	0+66 TO 2+92
2	SYLVAN LAKE ROAD	8+27.25 TO 21+50
3	SYLVAN LAKE ROAD	21+50 TO 32+70
4	MT. HOPE CIRCLE	0+00 TO 8+00
4	RED PEAK ROAD	0+00–2+00; 8+40–9+43
5	RED PEAK ROAD	2+00 TO 8+40
4	WHITNEY PEAK ROAD	0+00 TO 3+26
4	SNOWY PEAK DRIVE	0+00 TO 4+50
7	ALLEY 1	0+00 TO 8+10
8	ALL ROADS	AS NEEDED
9	EMERGENCY ACCESS	0+00 TO 3+75

PAVEMENT SECTION:

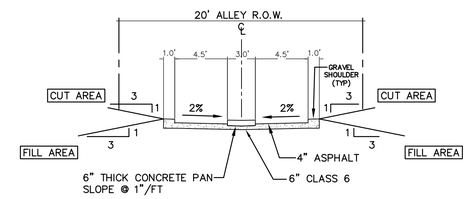
PER HP KUMAR SUPPLEMENTAL SUBSOIL STUDY FOR SITE GRADING AND PAVEMENT SECTION DESIGN PROJECT NO. 17-7-676 DATED 3-21-18 AND RECOMMENDATIONS FOR PAVEMENT DESIGN AND ROADWAY SUBGRADE STABILIZATION PROJECT NO. 17-7-676 DATED 1-31-19.



5 LOCAL ROAD WITH ON STREET PARKING (ONE SIDE)



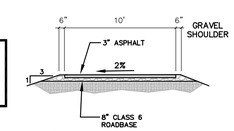
6 20' GRAVEL ROAD



7 ALLEY SECTION

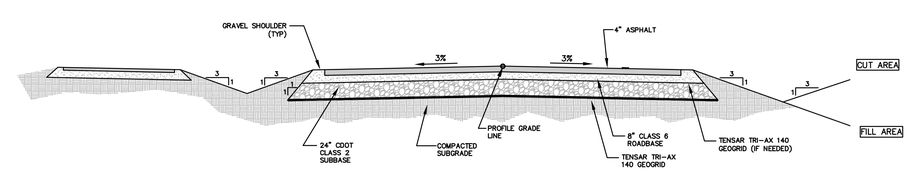
NOTE:

INCREASE ASPHALT THICKNESS TO 4" ON THE RECREATION PATH ON DEBRIS FLOW CHANNEL FROM STATION 3+35 TO 4+35 AND STA. 9+42 TO 10+42.

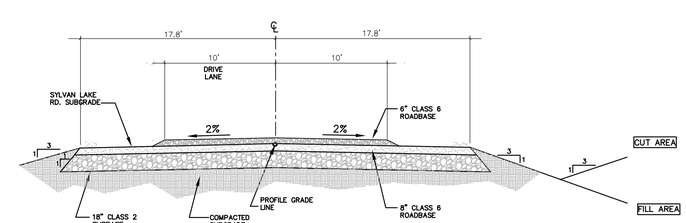


10' RECREATION PATH

80' R.O.W.



8 TYPICAL ROADWAY STABILIZATION SECTION
HP KUMAR FIGURE 1



9 EMERGENCY ACCESS RD.
STATION 0+00 TO 3+75

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MATTHEW C. WEAVER
7-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

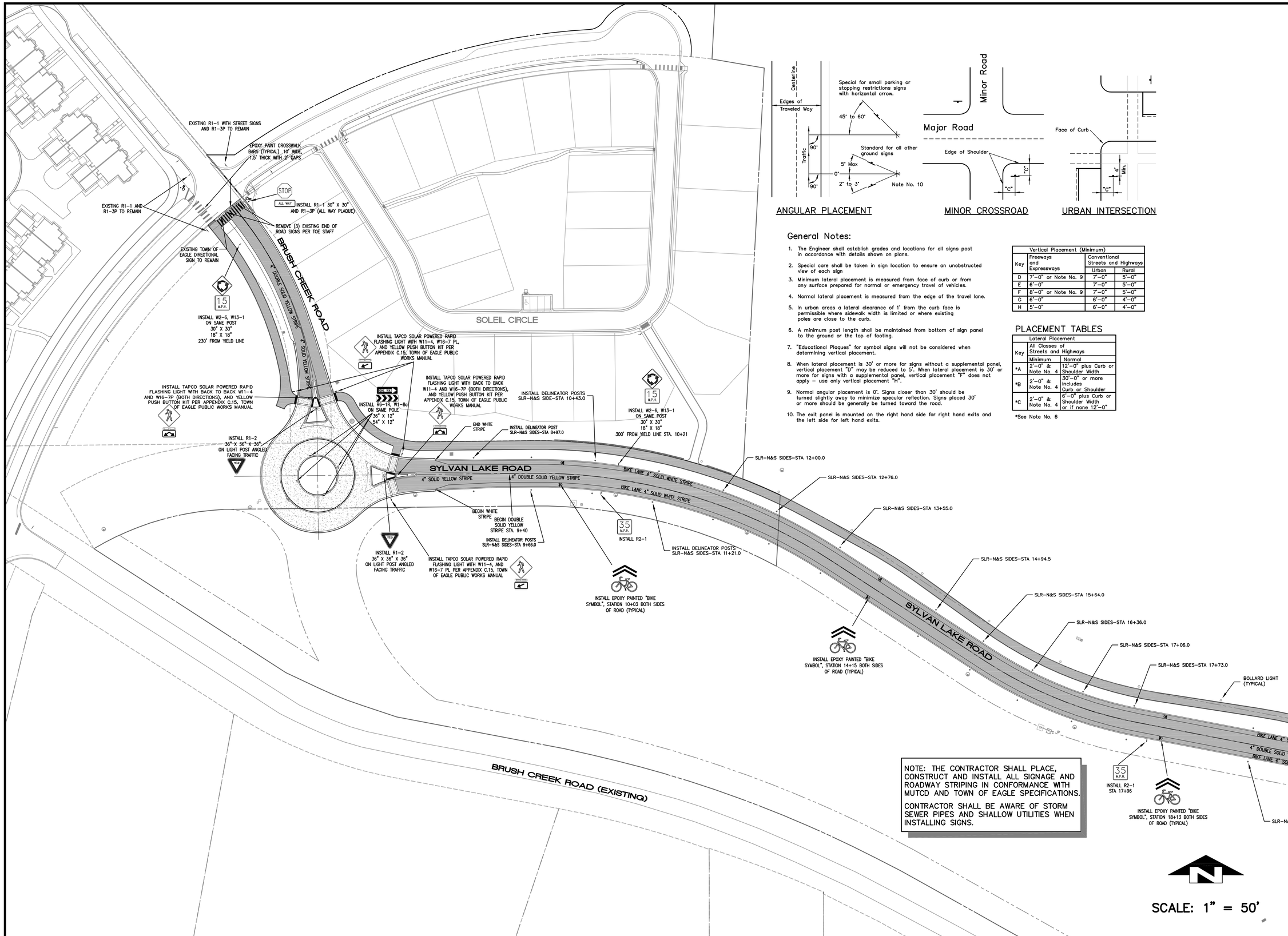
TYPICAL ROAD SECTIONS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.11

O:\Eagle\Haymeadow- 53480.5- 2016\dwg\Master\Road-Typical Sections-Ph1.dwg, 2/18/2019 11:33:52 AM, Lee



General Notes:

1. The Engineer shall establish grades and locations for all signs post in accordance with details shown on plans.
2. Special care shall be taken in sign location to ensure an unobstructed view of each sign
3. Minimum lateral placement is measured from face of curb or from any surface prepared for normal or emergency travel of vehicles.
4. Normal lateral placement is measured from the edge of the travel lane.
5. In urban areas a lateral clearance of 1' from the curb face is permissible where sidewalk width is limited or where existing poles are close to the curb.
6. A minimum post length shall be maintained from bottom of sign panel to the ground or the top of footing.
7. "Educational Plaques" for symbol signs will not be considered when determining vertical placement.
8. When lateral placement is 30' or more for signs without a supplemental panel, vertical placement "D" may be reduced to 5'. When lateral placement is 30' or more for signs with a supplemental panel, vertical placement "F" does not apply – use only vertical placement "H".
9. Normal angular placement is 0°. Signs closer than 30' should be turned slightly away to minimize specular reflection. Signs placed 30' or more should be generally be turned toward the road.
10. The exit panel is mounted on the right hand side for right hand exits and the left side for left hand exits.

Vertical Placement (Minimum)		
Key	Freeways and Expressways	Conventional Streets and Highways
		Urban	Rural
D	7'–0" or Note No. 9	7'–0"	5'–0"
E	6'–0"	7'–0"	5'–0"
F	8'–0" or Note No. 9	7'–0"	5'–0"
G	6'–0"	6'–0"	4'–0"
H	5'–0"	6'–0"	4'–0"

PLACEMENT TABLES

Lateral Placement		
Key	All Classes of Streets and Highways	
	Minimum	Normal
*A	2'–0" & Note No. 4	12'–0" plus Curb or Shoulder Width
*B	2'–0" & Note No. 4	30'–0" or more includes Curb or Shoulder
*C	2'–0" & Note No. 4	6'–0" plus Curb or Shoulder Width or if none 12'–0"

*See Note No. 6

NOTE: THE CONTRACTOR SHALL PLACE, CONSTRUCT AND INSTALL ALL SIGNAGE AND ROADWAY STRIPING IN CONFORMANCE WITH MUTCD AND TOWN OF EAGLE SPECIFICATIONS.

CONTRACTOR SHALL BE AWARE OF STORM SEWER PIPES AND SHALLOW UTILITIES WHEN INSTALLING SIGNS.

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MATTHEW C. WEBER
11-8-18
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PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

SIGNAGE AND STRIPING PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.12

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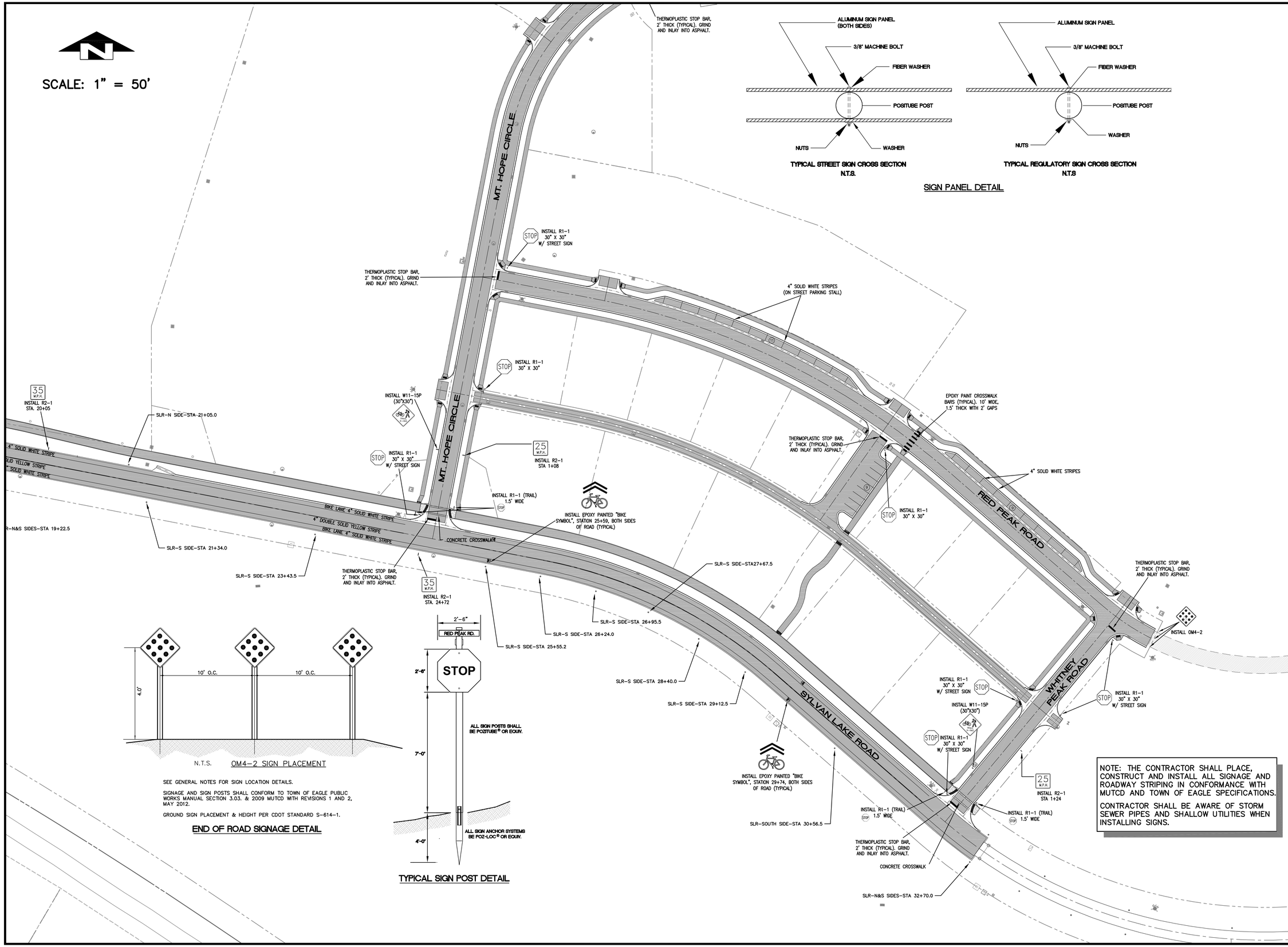
SCALE: 1" = 50'



NOTE: THE CONTRACTOR SHALL PLACE, CONSTRUCT AND INSTALL ALL SIGNAGE AND ROADWAY STRIPING IN CONFORMANCE WITH MUTCD AND TOWN OF EAGLE SPECIFICATIONS.

CONTRACTOR SHALL BE AWARE OF STORM SEWER PIPES AND SHALLOW UTILITIES WHEN INSTALLING SIGNS.

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HAYMEADOW FILING 1

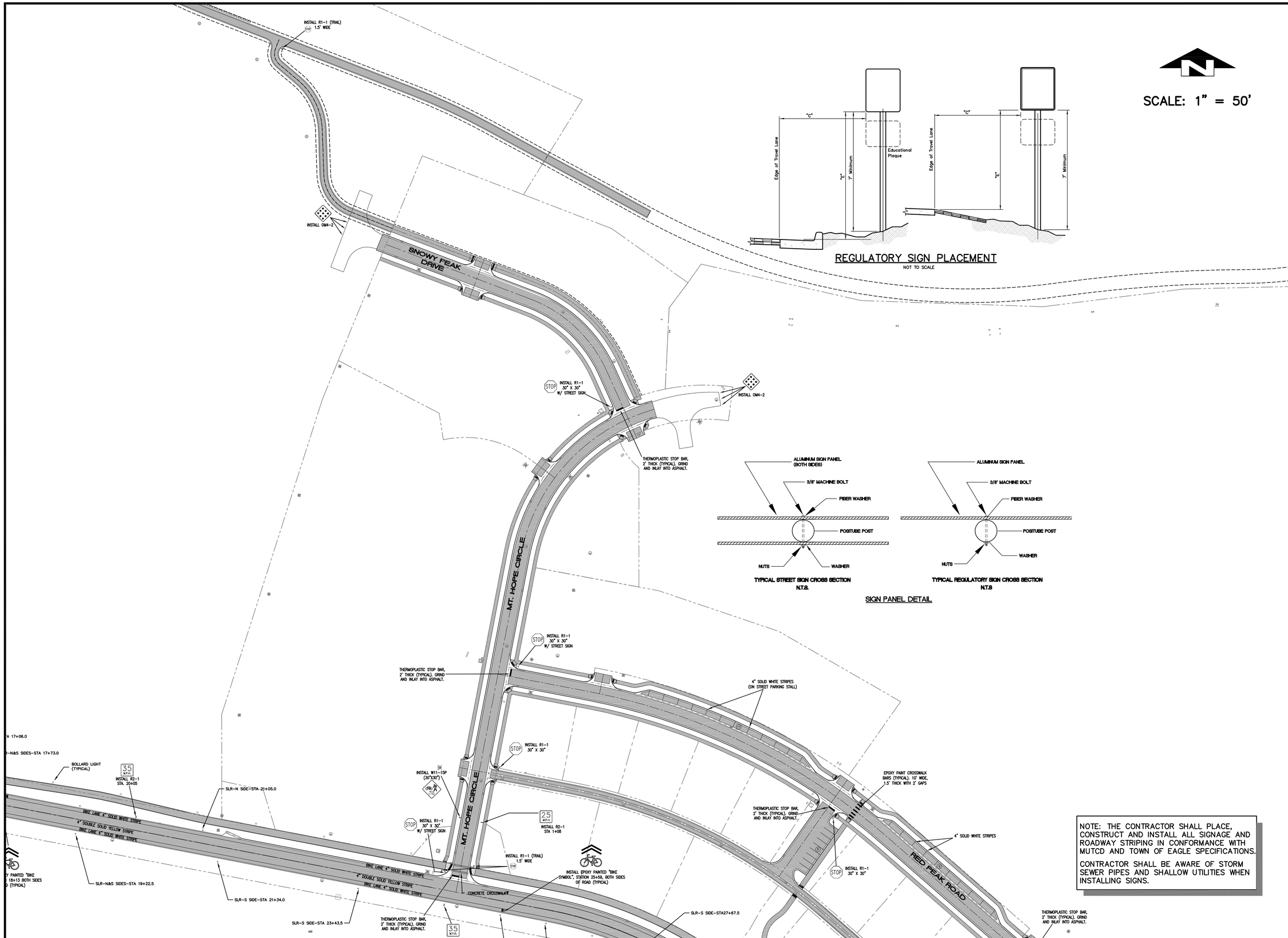
SIGNAGE AND STRIPING PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.13

O:\Eagle\Haymeadow-53480.5-2016\dwg\Master\Signage and Striping-Filing 1.dwg, 2/20/2019 11:27:02 AM, Brooks



NOTE: THE CONTRACTOR SHALL PLACE, CONSTRUCT AND INSTALL ALL SIGNAGE AND ROADWAY STRIPING IN CONFORMANCE WITH MUTCD AND TOWN OF EAGLE SPECIFICATIONS.

CONTRACTOR SHALL BE AWARE OF STORM SEWER PIPES AND SHALLOW UTILITIES WHEN INSTALLING SIGNS.

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HAYMEADOW FILING 1

SIGNAGE AND STRIPING PLAN

NO.	DATE	REVISIONS	BY
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	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.14

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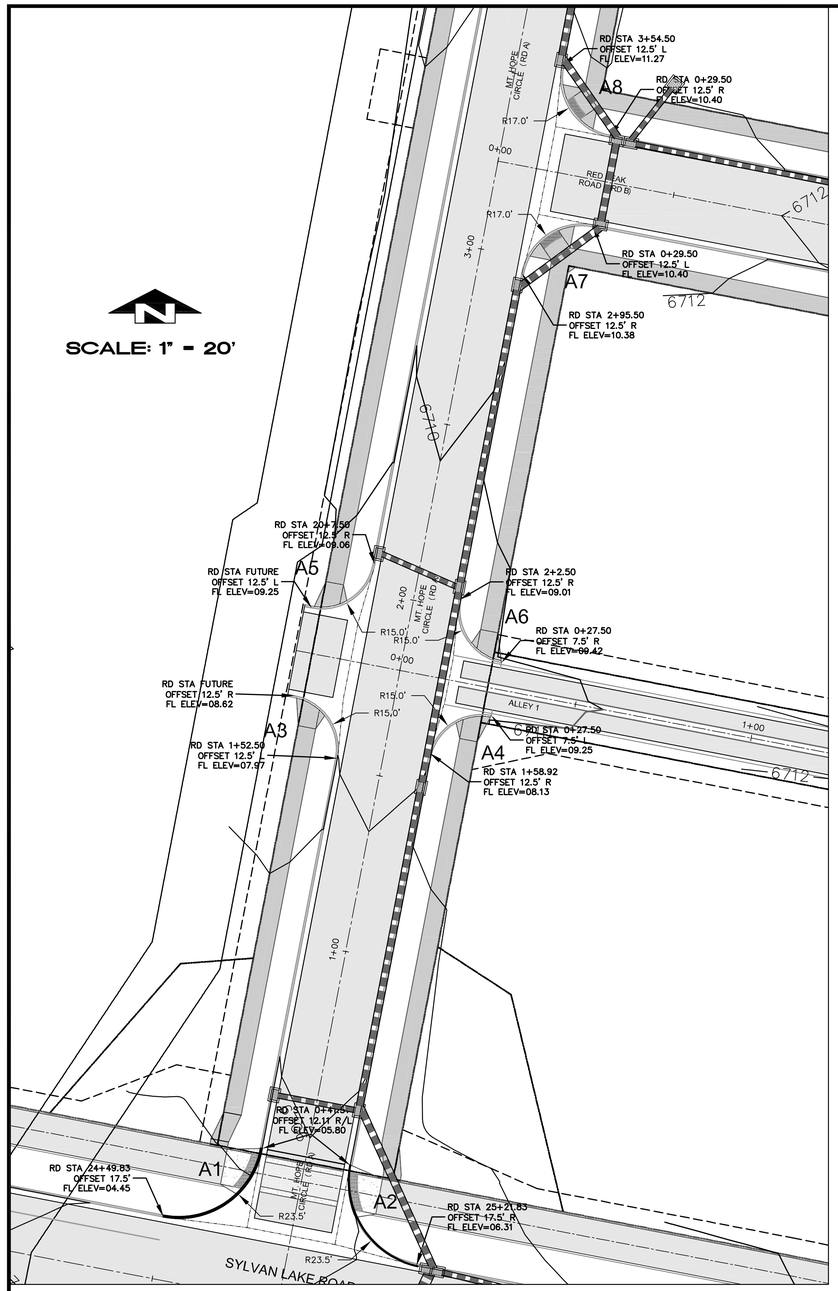
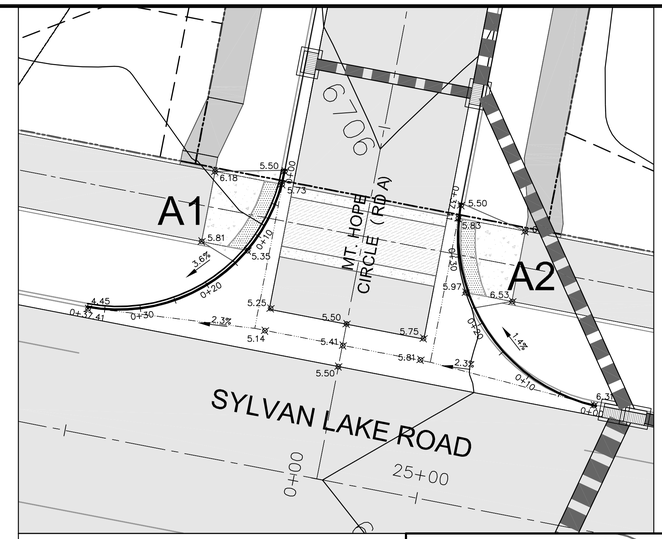
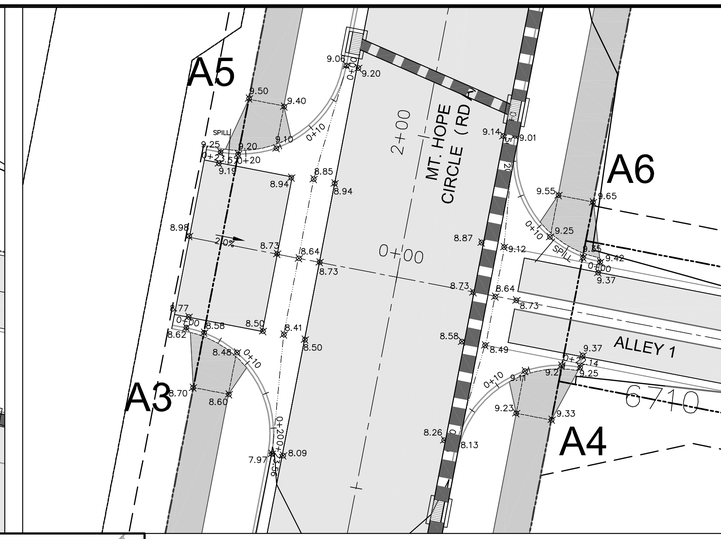


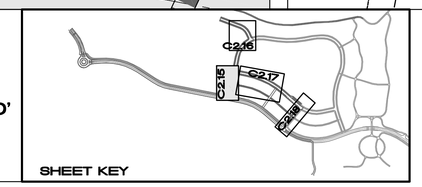


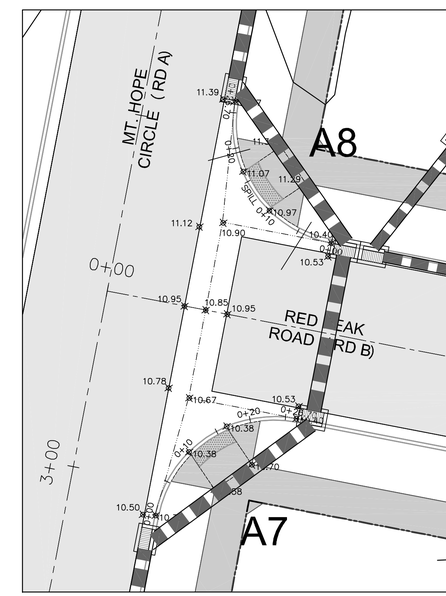


SEE STORM DRAINAGE SHEETS FOR DRAINAGE INFORMATION

SEE SHEET C2.11 FOR ROAD SECTIONS

SCALE: 1" = 10'





NOTES:

1. ALL PROFILES ARE VIEWED FROM INSIDE OF THE CURVE, FROM LEFT TO RIGHT
2. ALL ALIGNMENTS AND PROFILES ARE FROM FLOWLINE (BOTTOM OF CURB)
3. ALL GUTTERS ARE CATCH UNLESS NOTED OTHERWISE
4. SPOT ELEVATIONS AT PC & PT ARE ON THE FLOWLINES
5. ALL RADII SHOWN ARE TO FLOWLINE
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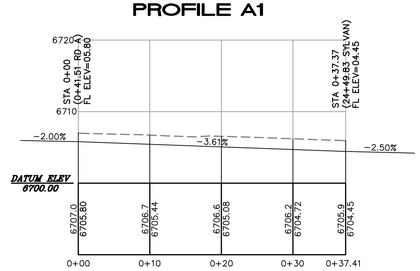
8. ALL STATIONS, OFFSETS, AND ELEVATIONS REFER TO ROAD/ALLEY ALIGNMENTS AND PROFILES, UNLESS NOTED OTHERWISE

PROFILE A1



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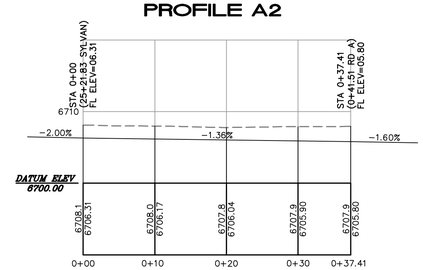
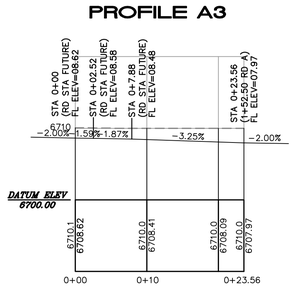


HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

PROFILE A3



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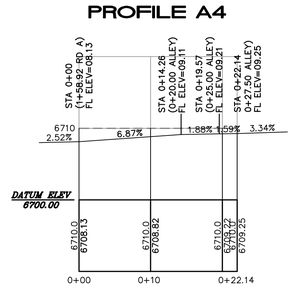

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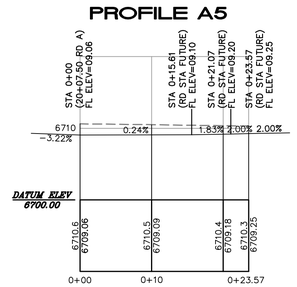

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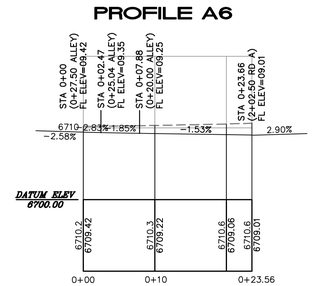

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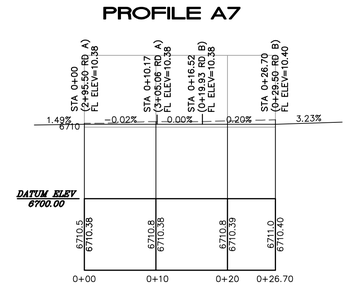

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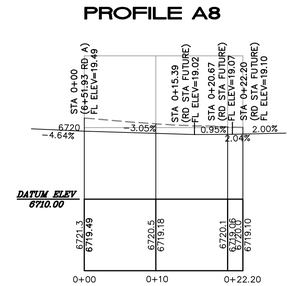

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MATTHEW C. LEE
11-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

CURB AND GUTTER PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.15

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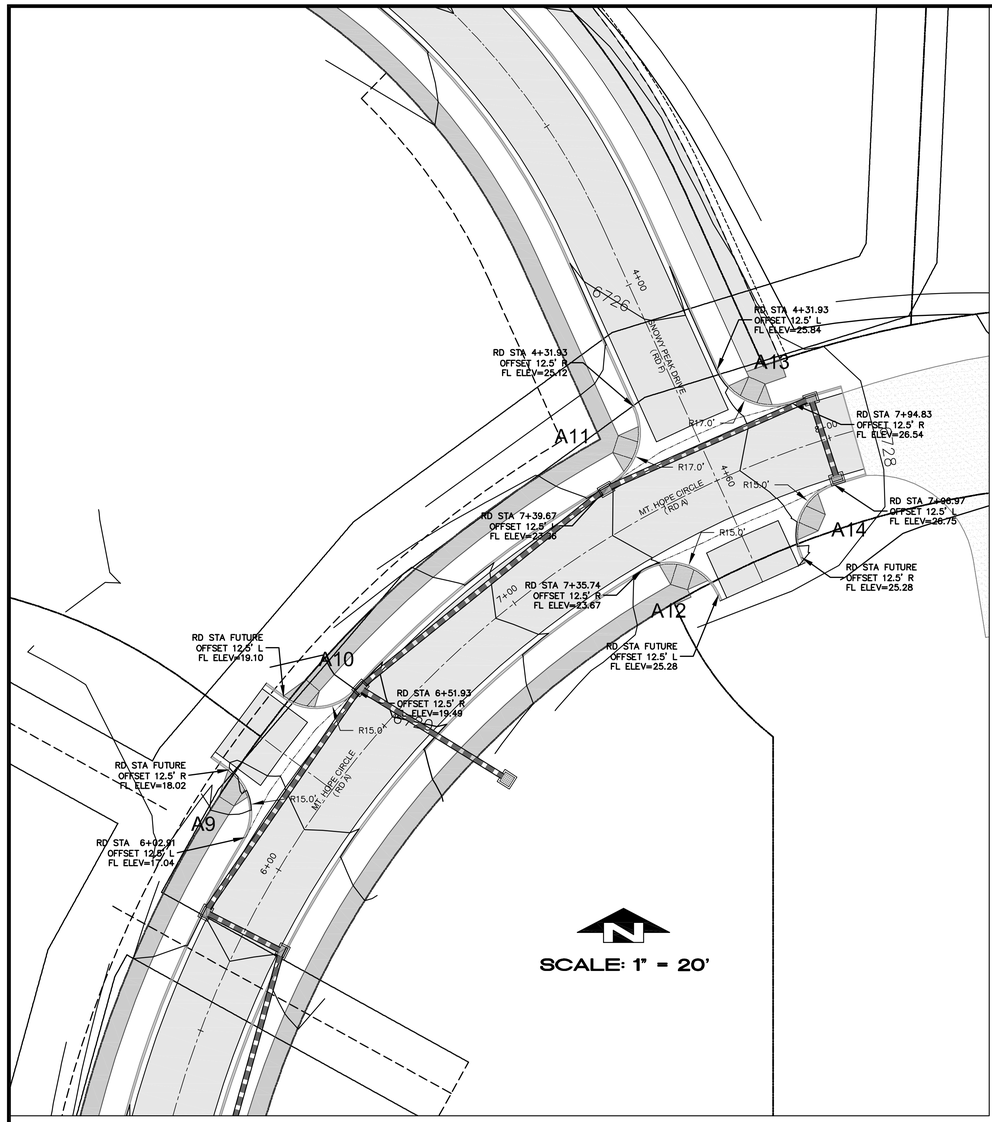
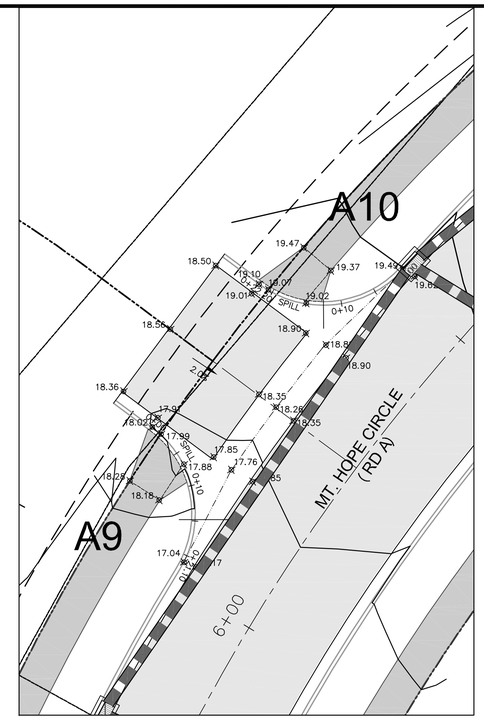
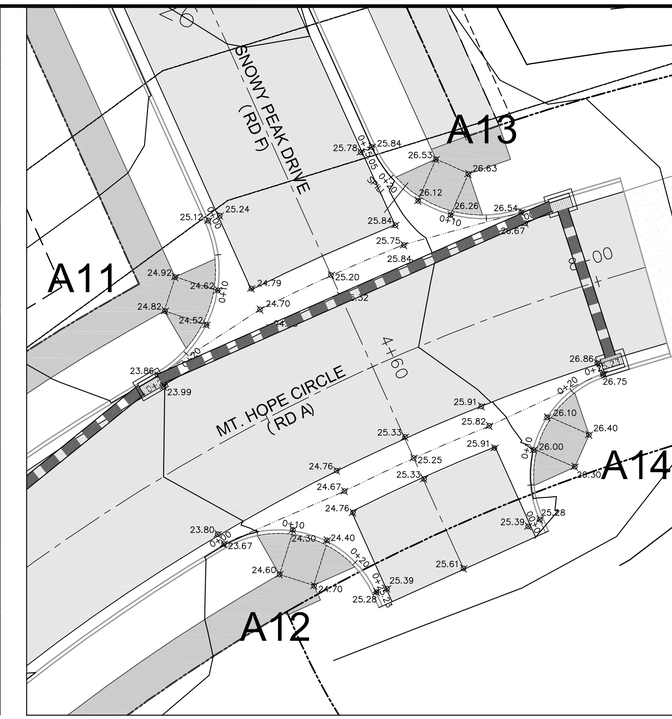


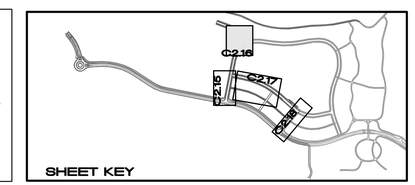




SEE STORM DRAINAGE SHEETS FOR DRAINAGE INFORMATION

SEE SHEET C2.11 FOR ROAD SECTIONS

SCALE: 1" = 10'



HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

NOTES:
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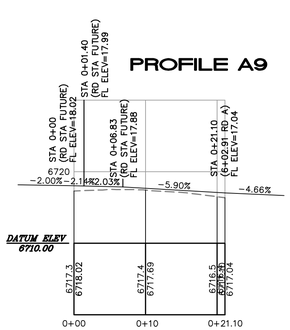
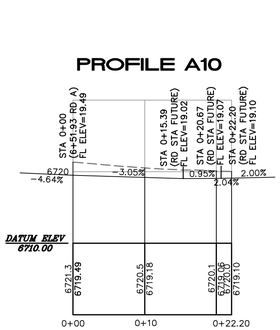
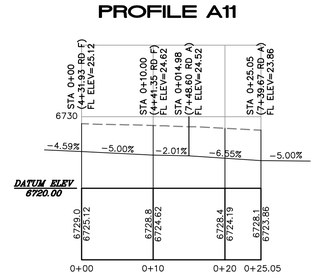
PROFILE A9



PROFILE A10



PROFILE A11



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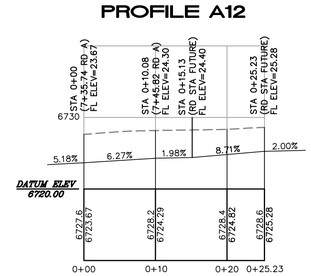
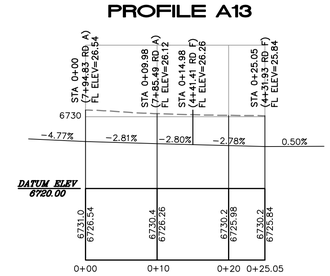


PROFILE A13



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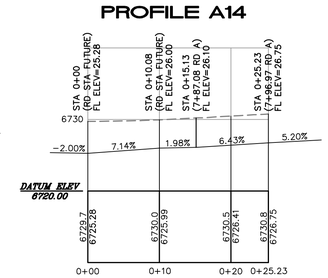

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MATTHEW C. WEAVER
11-8-18
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

CURB AND GUTTER PROFILES

NO.	DATE	REVISIONS	BY
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DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 534.80.5
DATE 02/20/2019

SHEET C2.16

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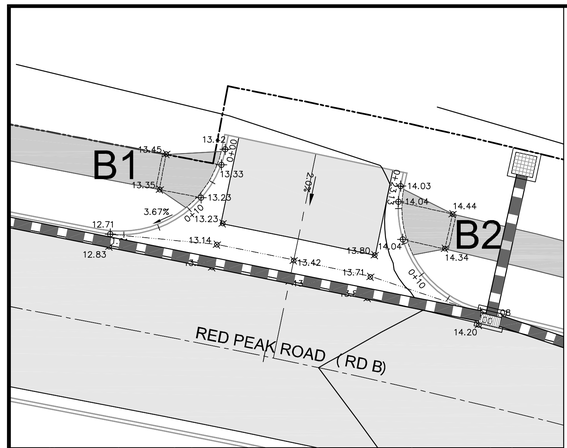
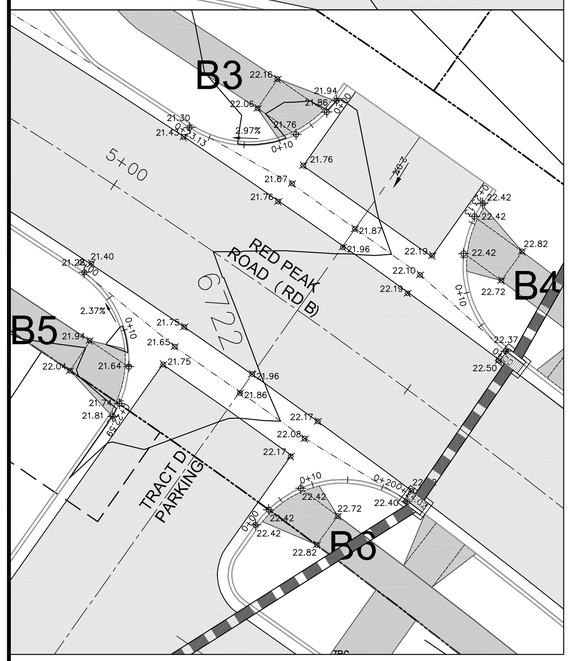
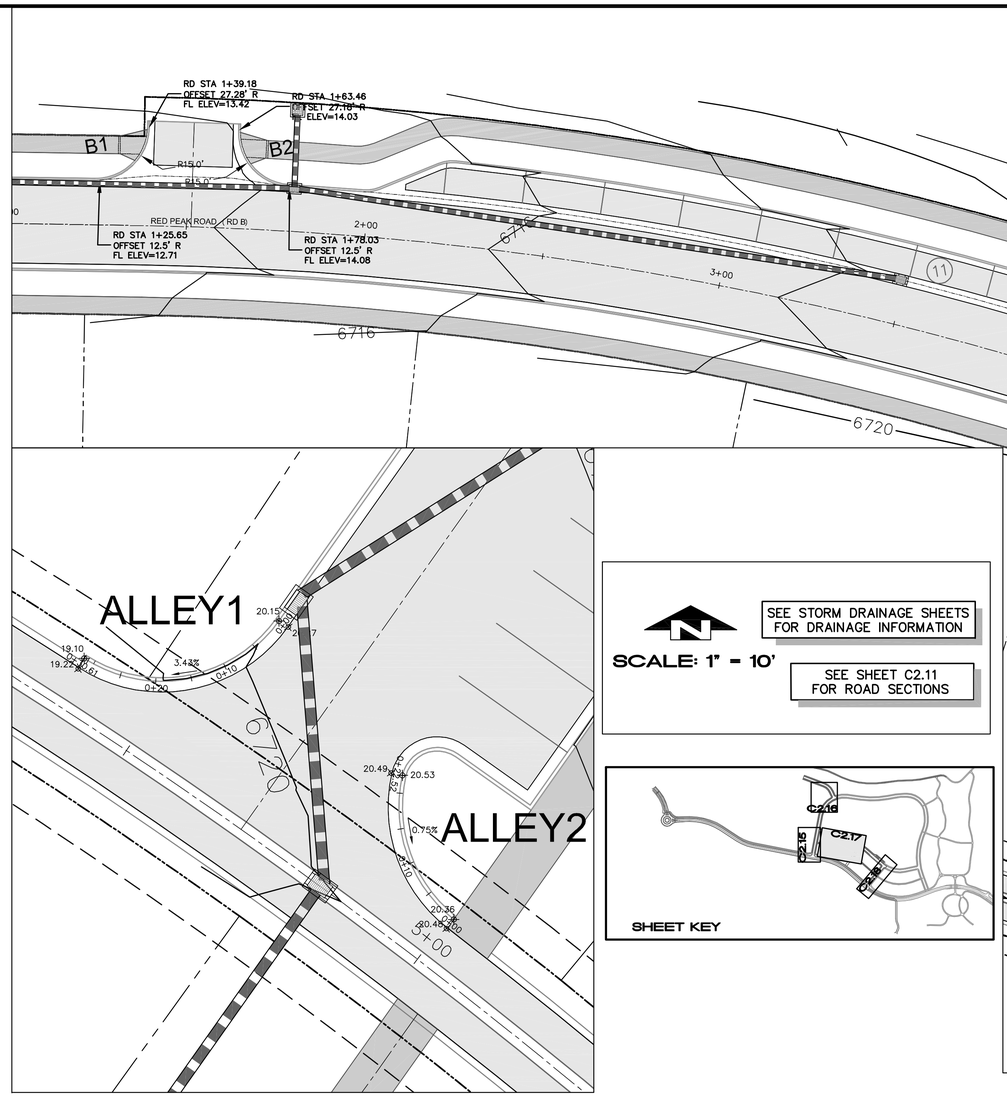




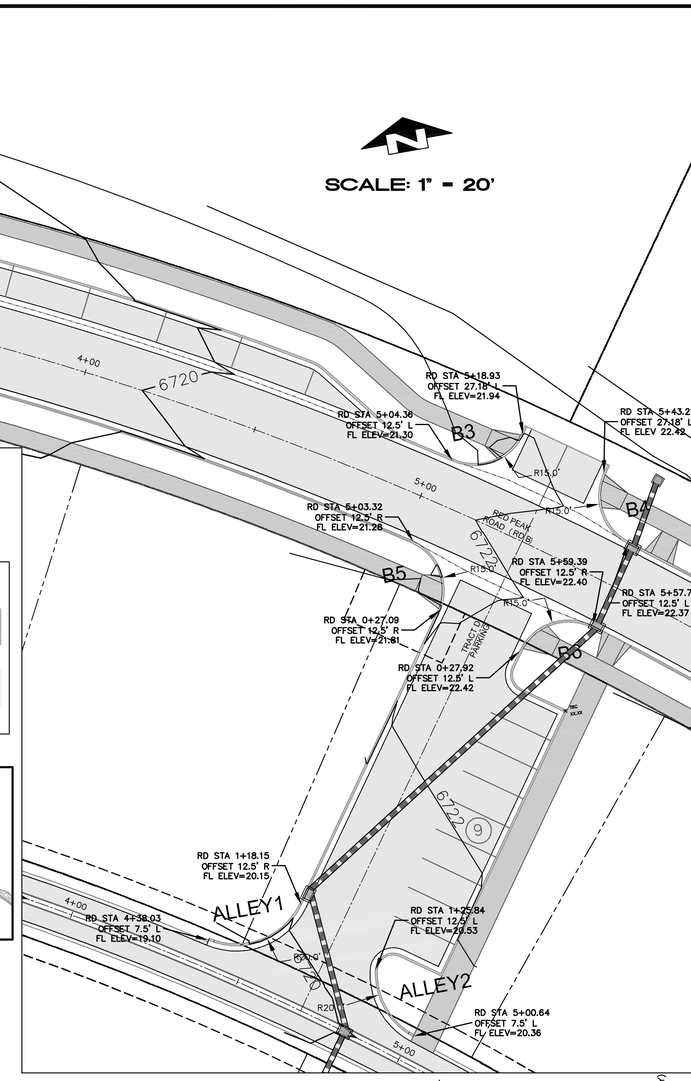


SCALE: 1" = 10'

SEE STORM DRAINAGE SHEETS FOR DRAINAGE INFORMATION

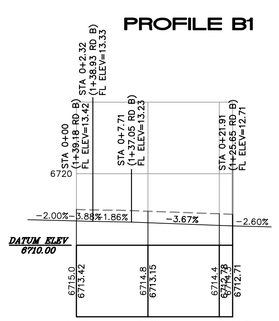
SEE SHEET C2.11 FOR ROAD SECTIONS

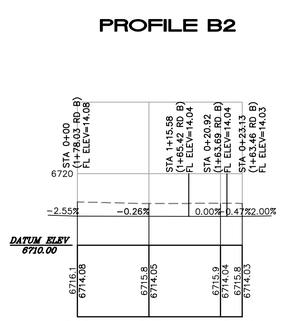
SHEET KEY

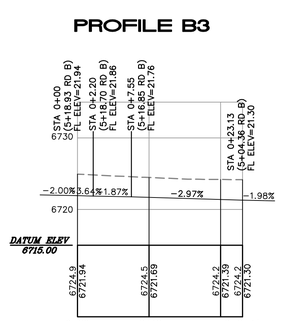


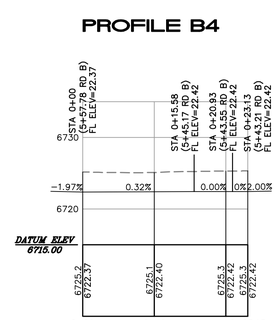
NOTES:
1. ALL PROFILES ARE VIEWED FROM INSIDE OF THE CURVE, FROM LEFT TO RIGHT
2. ALL ALIGNMENTS AND PROFILES ARE FROM FLOWLINE (BOTTOM OF CURB)
3. ALL GUTTERS ARE CATCH UNLESS NOTED OTHERWISE
4. SPOT ELEVATIONS AT PC & PT ARE ON THE FLOWLINES
5. ALL RADII SHOWN ARE TO FLOWLINE
6. TRANSITION FROM CATCH TO SPILL AS SHOWN
7. CURB PROFILE STATIONING IS SEPARATE FROM ROADWAY STATIONING, ROAD REFERENCES ARE PROVIDED IN PARANTHESES
8. ALL STATIONS, OFFSETS, AND ELEVATIONS REFER TO ROAD/ALLEY ALIGNMENTS AND PROFILES, UNLESS NOTED OTHERWISE

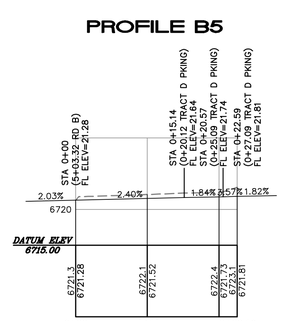
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

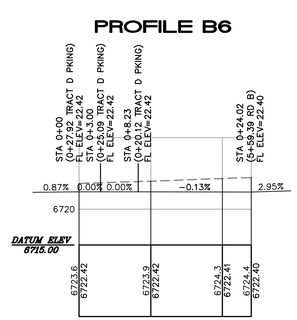


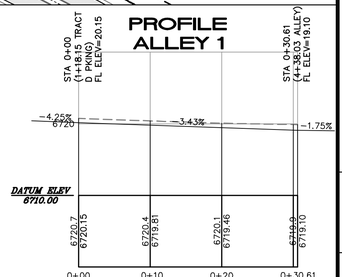


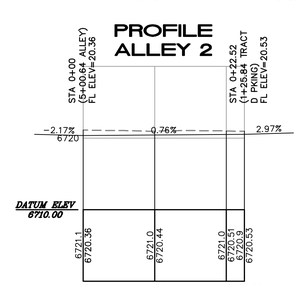












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MATTHEW C. LEE
11-8-18
39865
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HAYMEADOW FILING 1

CURB AND GUTTER PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.17

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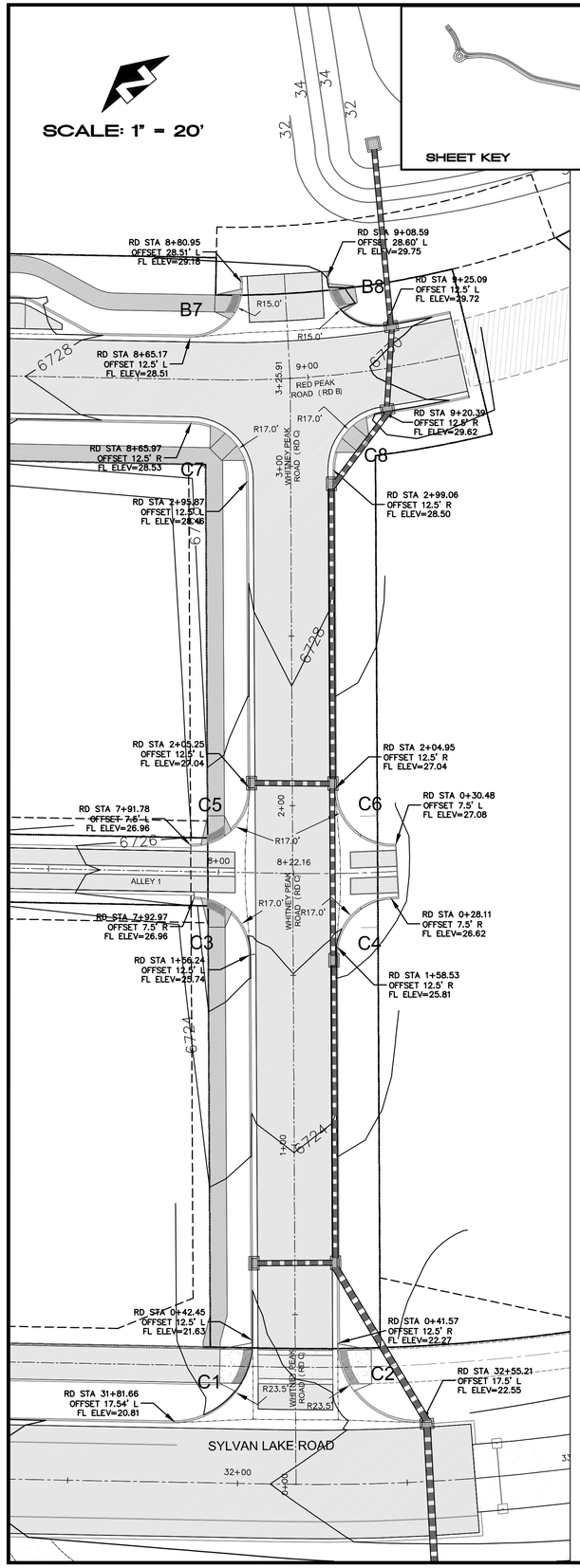
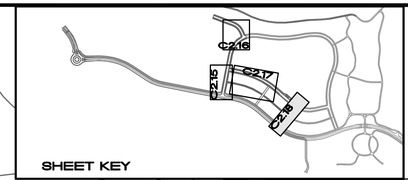


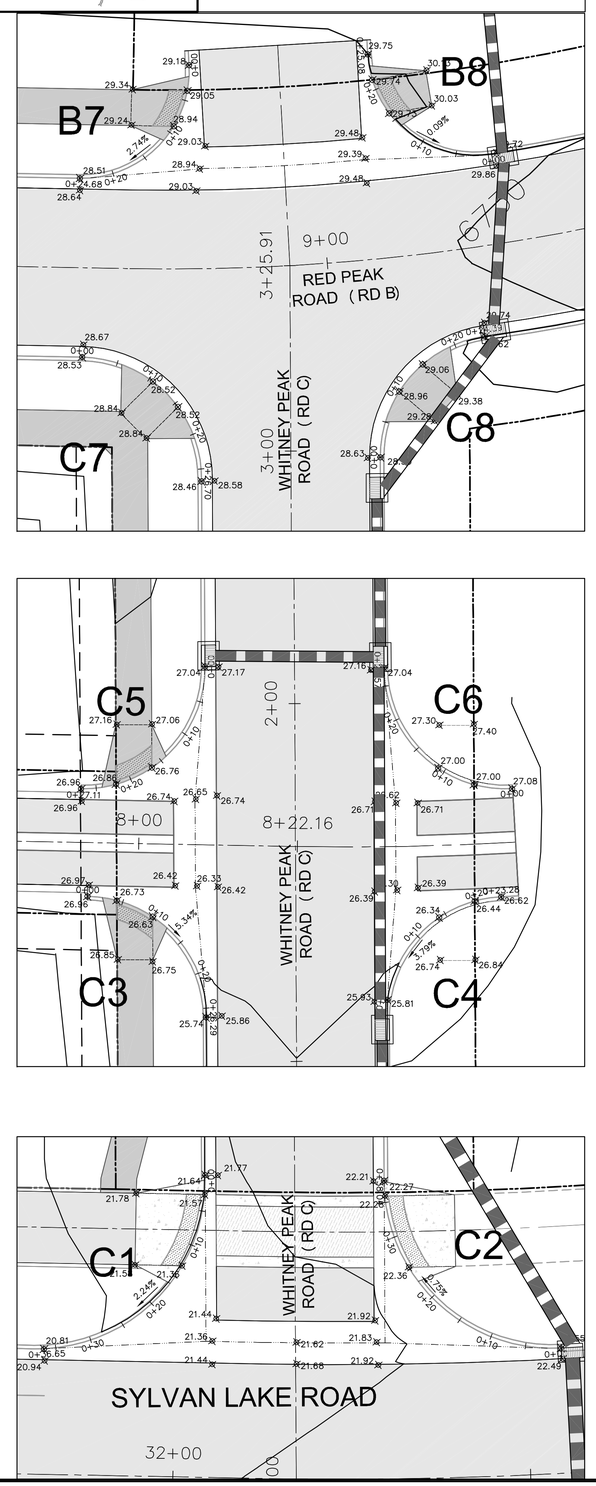


SHEET KEY

SEE STORM DRAINAGE SHEETS FOR DRAINAGE INFORMATION

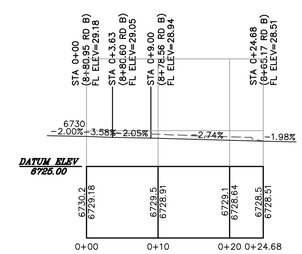
SEE SHEET C2.11 FOR ROAD SECTIONS

SCALE: 1" = 10'

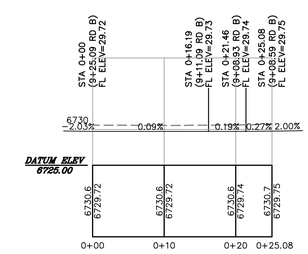


HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

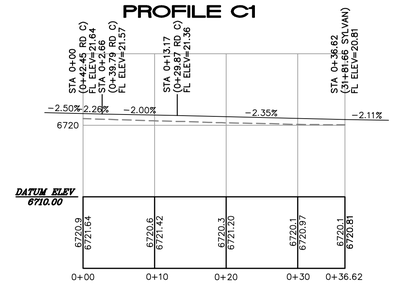
PROFILE B7



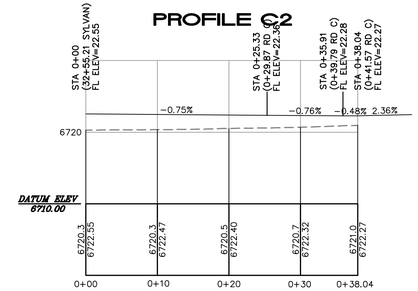
PROFILE B8



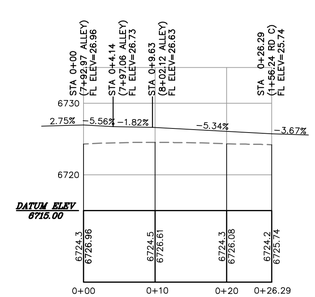
PROFILE C1



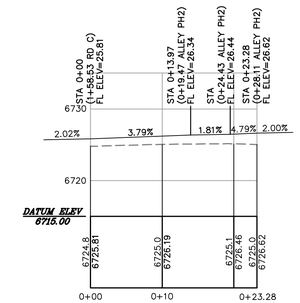
PROFILE C2



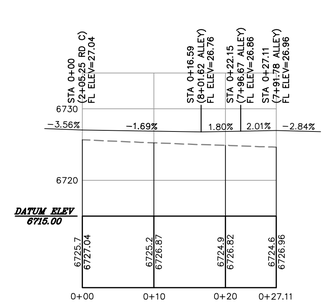
PROFILE C3



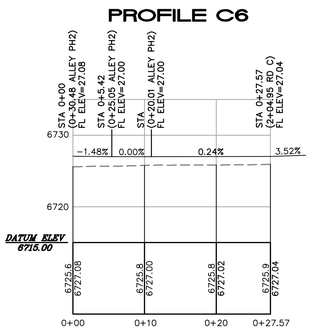
PROFILE C4



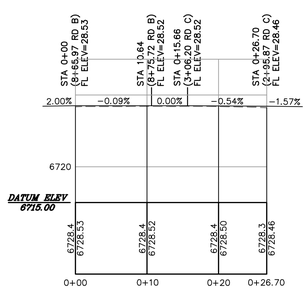
PROFILE C5



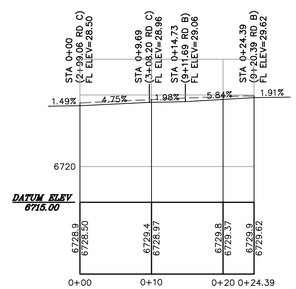
PROFILE C6



PROFILE C7



PROFILE C8



NOTES:
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COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. WEIER 11-8-19 39865

HAYMEADOW FILING 1

CURB AND GUTTER PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C2.18

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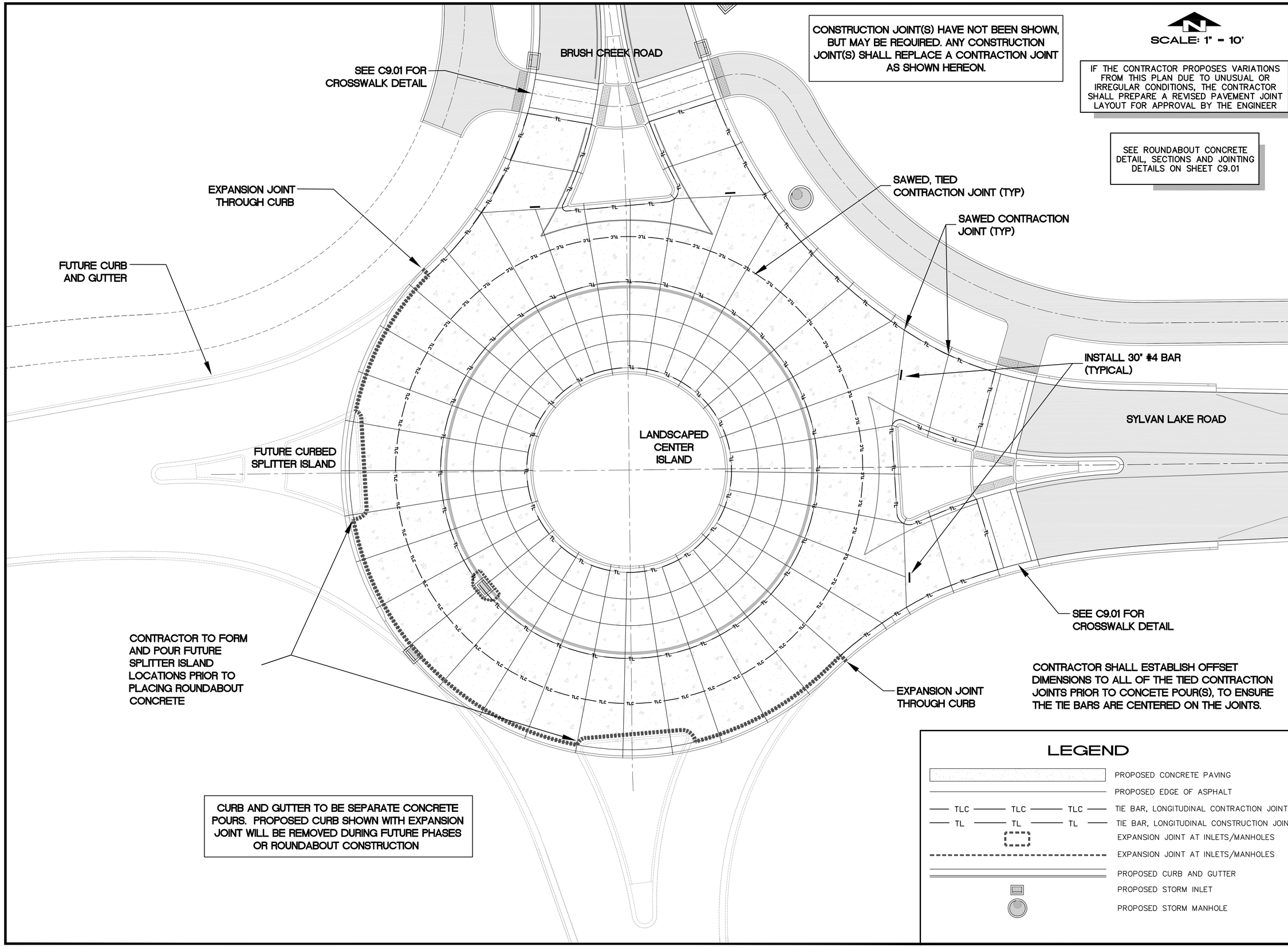
CONSTRUCTION JOINT(S) HAVE NOT BEEN SHOWN, BUT MAY BE REQUIRED. ANY CONSTRUCTION JOINT(S) SHALL REPLACE A CONTRACTION JOINT AS SHOWN HEREON.

SCALE: 1" = 10'

IF THE CONTRACTOR PROPOSES VARIATIONS FROM THIS PLAN DUE TO UNUSUAL OR IRREGULAR CONDITIONS, THE CONTRACTOR SHALL PREPARE A REVISED PAVEMENT JOINT LAYOUT FOR APPROVAL BY THE ENGINEER

SEE ROUNDABOUT CONCRETE DETAIL, SECTIONS AND JOINTING DETAILS ON SHEET C9.01



CURB AND GUTTER TO BE SEPARATE CONCRETE POURS. PROPOSED CURB SHOWN WITH EXPANSION JOINT WILL BE REMOVED DURING FUTURE PHASES OR ROUNDABOUT CONSTRUCTION

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HAYMEADOW FILING 1

ROUNDABOUT JOINTING PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C2.19

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HAYMEADOW FILING 1

OVERALL STORM PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET
C3.00

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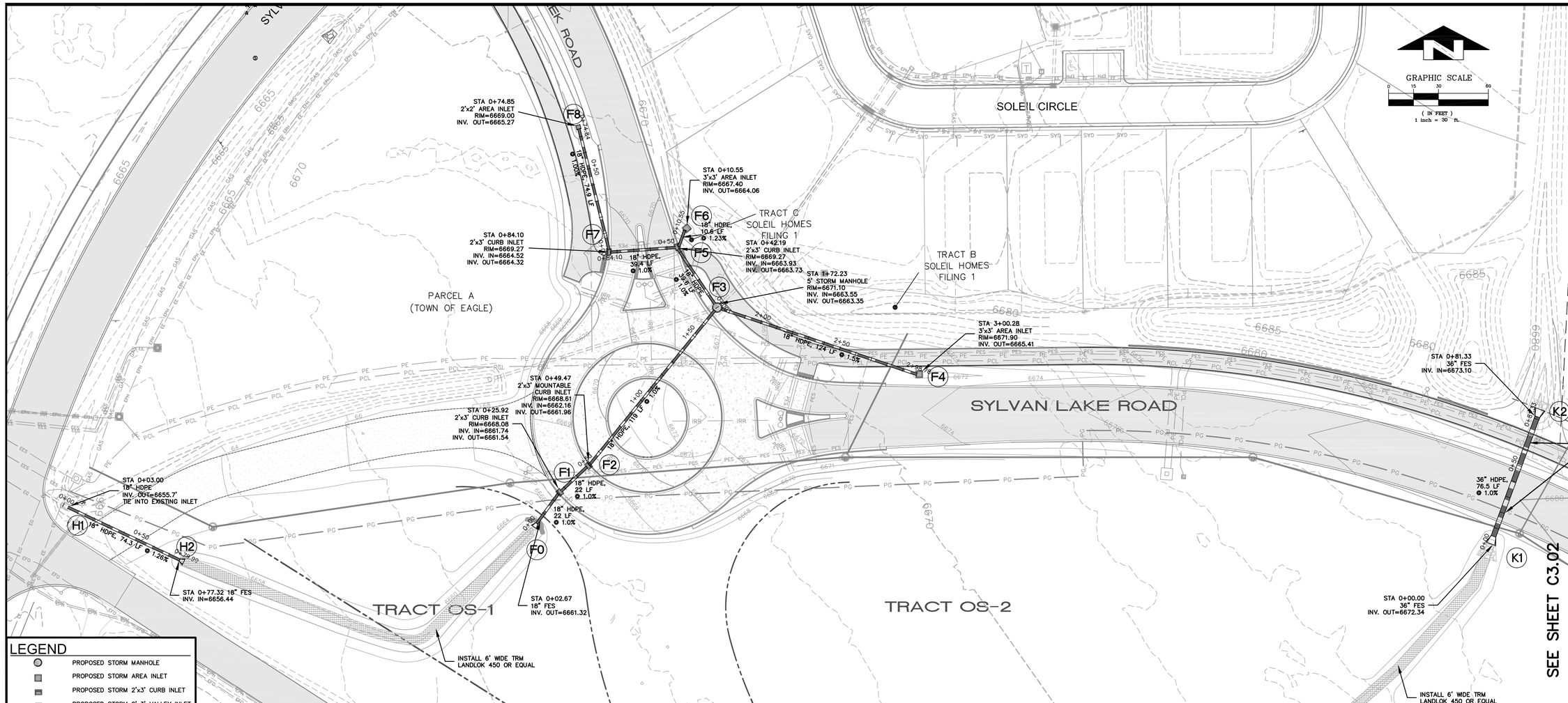
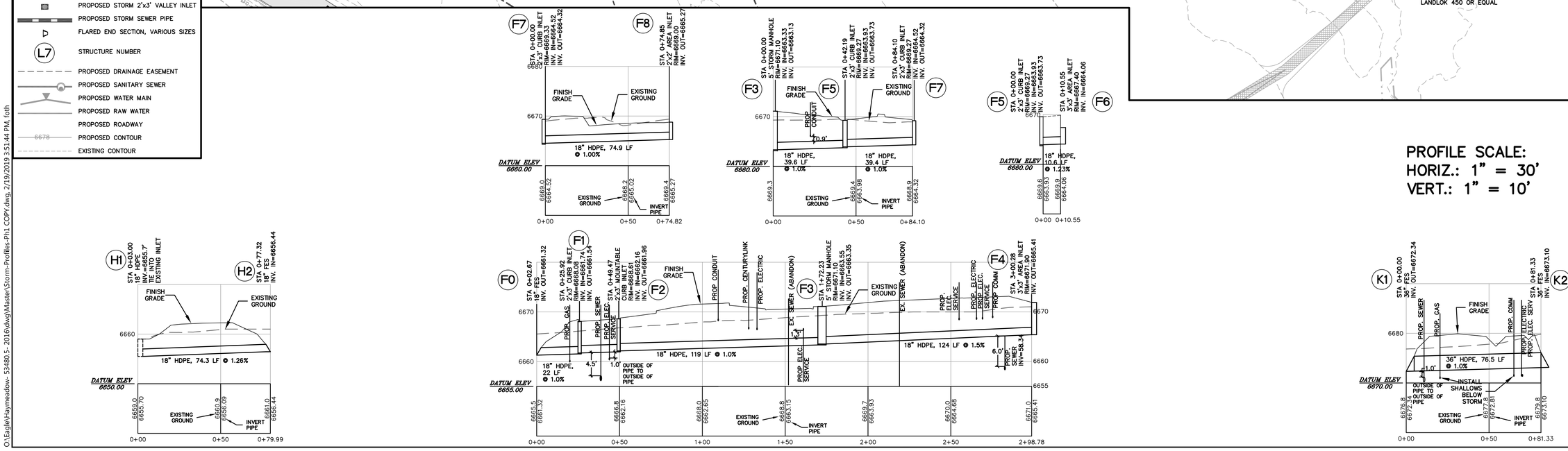


LEGEND

- PROPOSED STORM MANHOLE
- PROPOSED STORM AREA INLET
- PROPOSED STORM 2'x3' CURB INLET
- PROPOSED STORM 2'x3' VALLEY INLET
- PROPOSED STORM SEWER PIPE
- FLARED END SECTION, VARIOUS SIZES
- L7 STRUCTURE NUMBER
- PROPOSED DRAINAGE EASEMENT
- PROPOSED SANITARY SEWER
- PROPOSED WATER MAIN
- PROPOSED RAW WATER
- PROPOSED ROADWAY
- 6678 PROPOSED CONTOUR
- EXISTING CONTOUR



PROFILE SCALE:
HORIZ.: 1" = 30'
VERT.: 1" = 10'

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HAYMEADOW FILING 1

STORM PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET
C3.01

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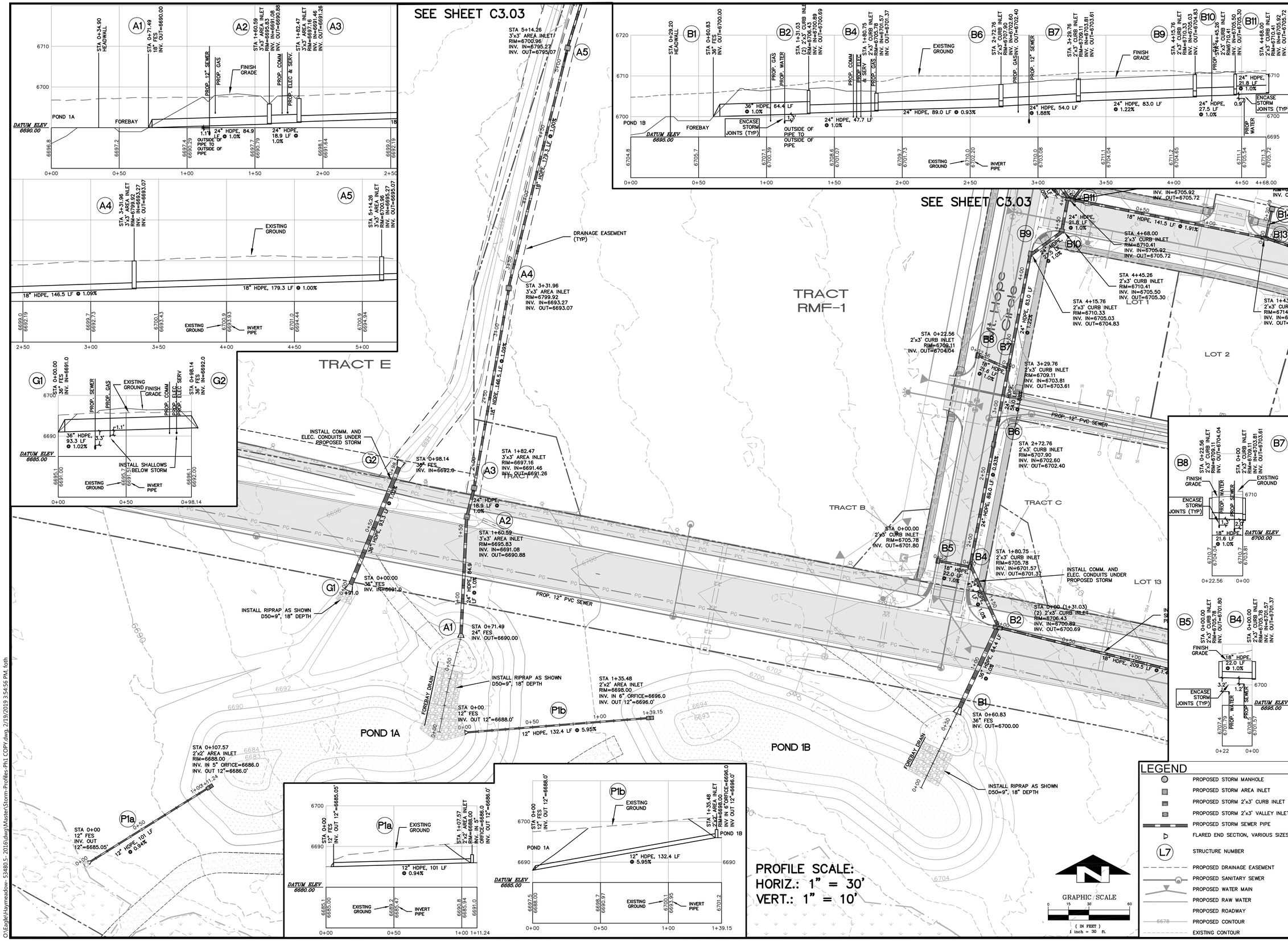

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HAYMEADOW FILING 1

STORM PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C3.02

LEGEND

- PROPOSED STORM MANHOLE
- PROPOSED STORM AREA INLET
- PROPOSED STORM 2'x3' CURB INLET
- PROPOSED STORM 2'x3' VALLEY INLET
- PROPOSED STORM SEWER PIPE
- FLARED END SECTION, VARIOUS SIZES
- L7 STRUCTURE NUMBER
- PROPOSED DRAINAGE EASEMENT
- PROPOSED SANITARY SEWER
- PROPOSED WATER MAIN
- PROPOSED RAW WATER
- PROPOSED ROADWAY
- 6678 PROPOSED CONTOUR
- EXISTING CONTOUR

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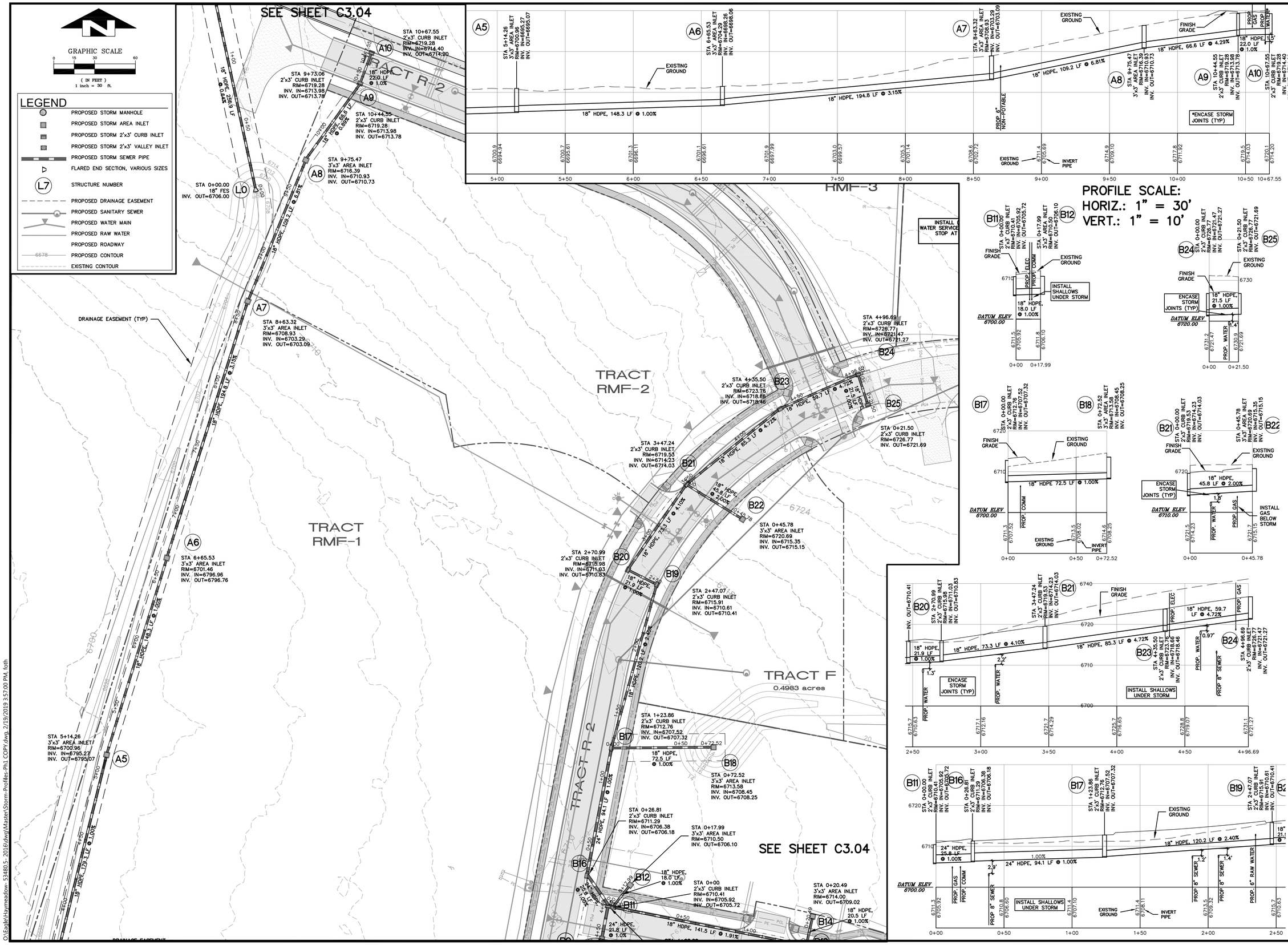

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MATTHEW C. BOLES
11-8-18
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

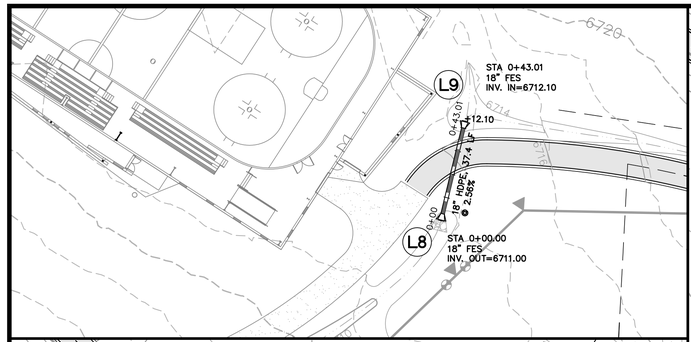
STORM PLAN AND PROFILES

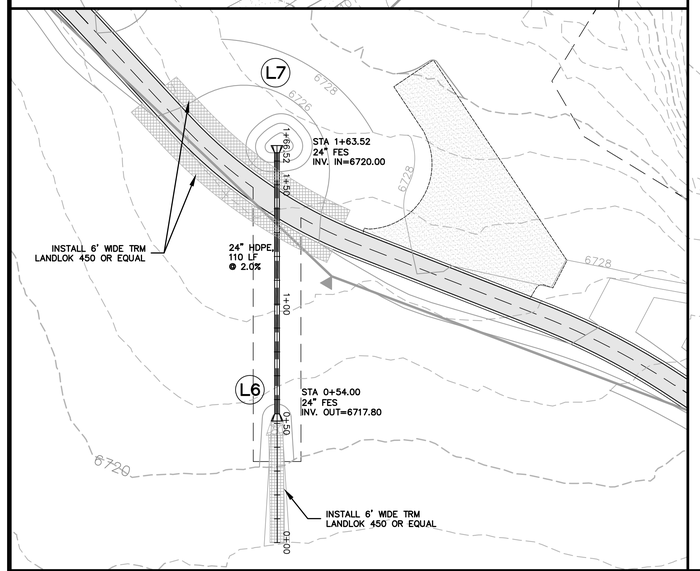
NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

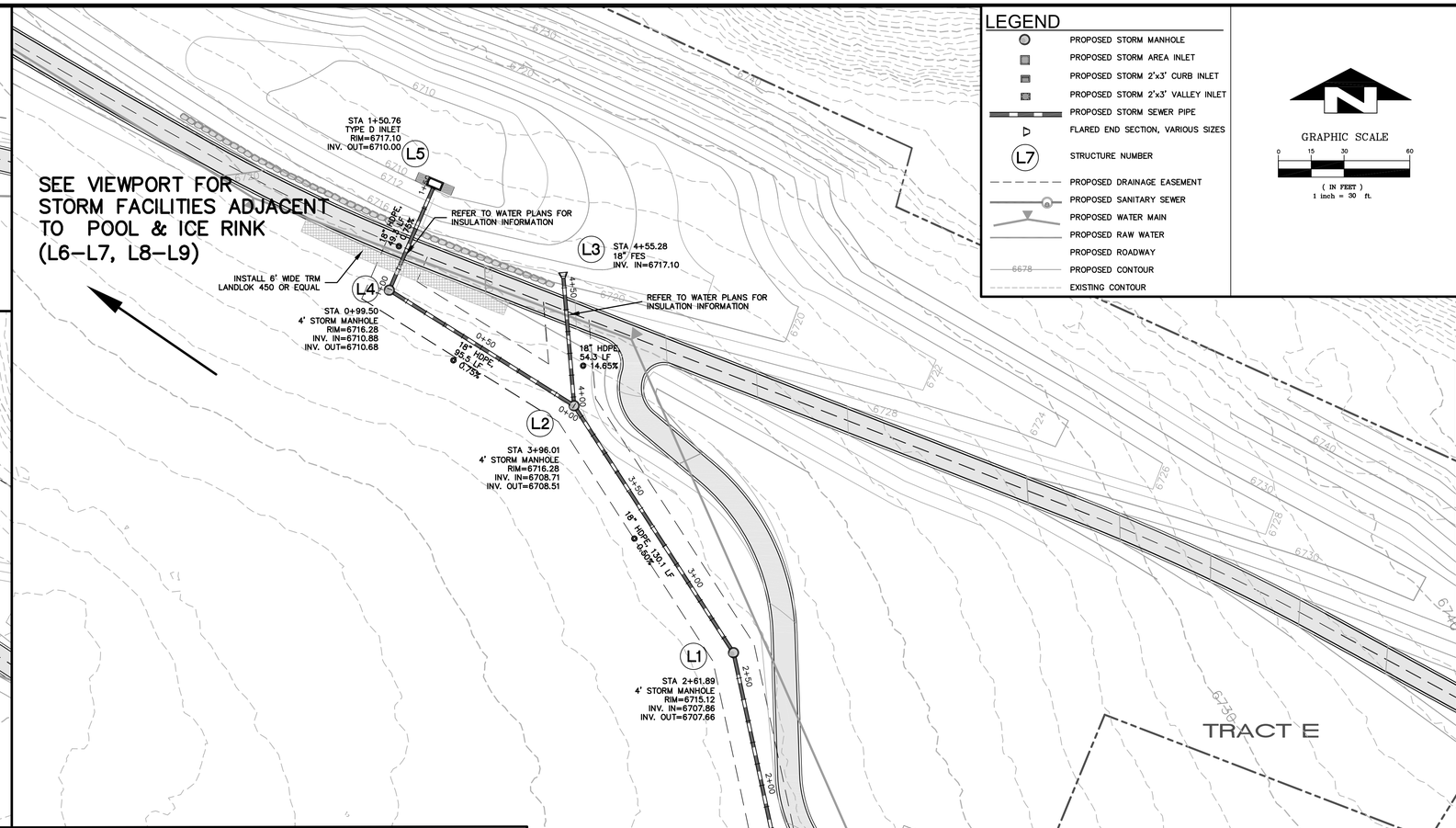
DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C3.03

O:\Eagle\Haymeadow- 53480.5- 2016\dwg\Master\Storm-Profiles-Ph1 COPY.dwg, 2/19/2019 3:57:00 PM, foth







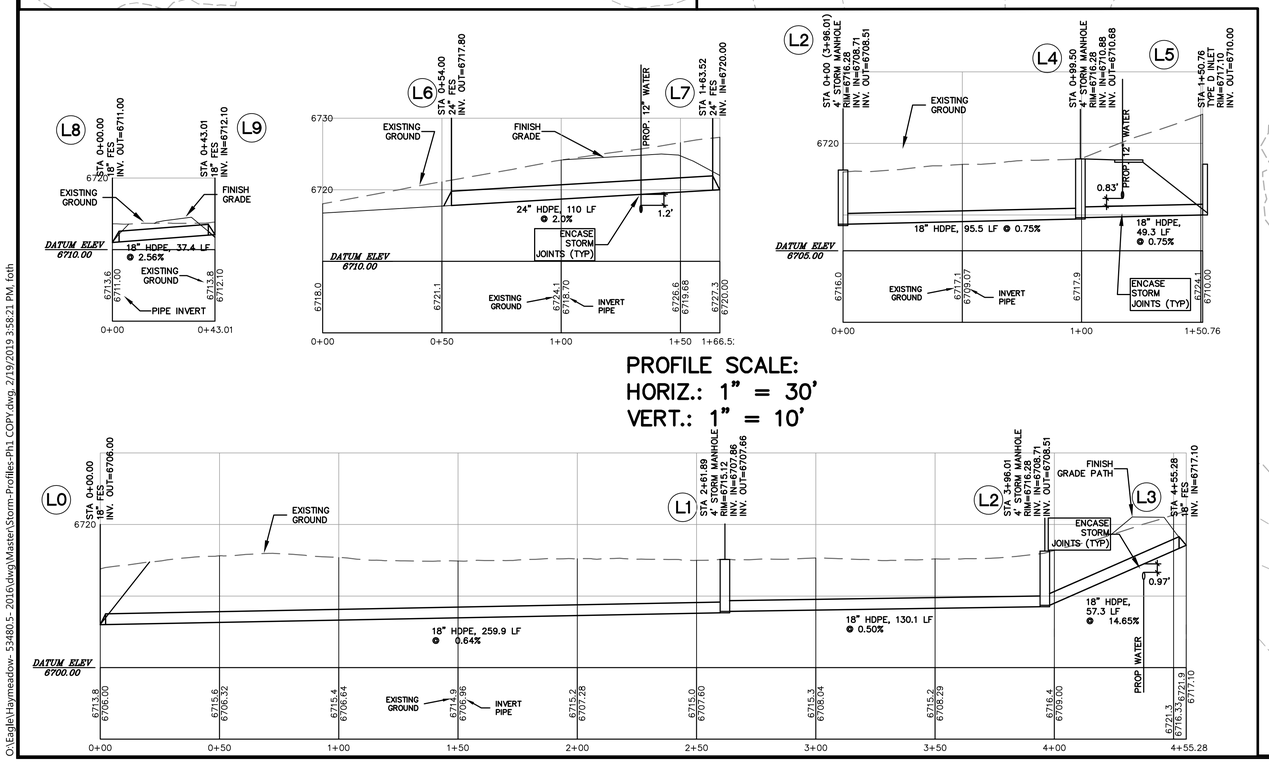
LEGEND

- PROPOSED STORM MANHOLE
- PROPOSED STORM AREA INLET
- PROPOSED STORM 2'x3' CURB INLET
- PROPOSED STORM 2'x3' VALLEY INLET
- PROPOSED STORM SEWER PIPE
- FLARED END SECTION, VARIOUS SIZES
- L7 STRUCTURE NUMBER
- PROPOSED DRAINAGE EASEMENT
- PROPOSED SANITARY SEWER
- PROPOSED WATER MAIN
- PROPOSED RAW WATER
- PROPOSED ROADWAY
- 6678 PROPOSED CONTOUR
- EXISTING CONTOUR

GRAPHIC SCALE

0 15 30 60

(IN FEET)
1 inch = 30 ft.



PROFILE SCALE:
HORIZ.: 1" = 30'
VERT.: 1" = 10'

O:\Eagle\Haymeadow-53480.5-2016\dwg\Master\Storm-Profiles-Ph1 COPY.dwg, 2/19/2019 3:58:21 PM, fath

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MATTHEW C. WEIER
11-8-18
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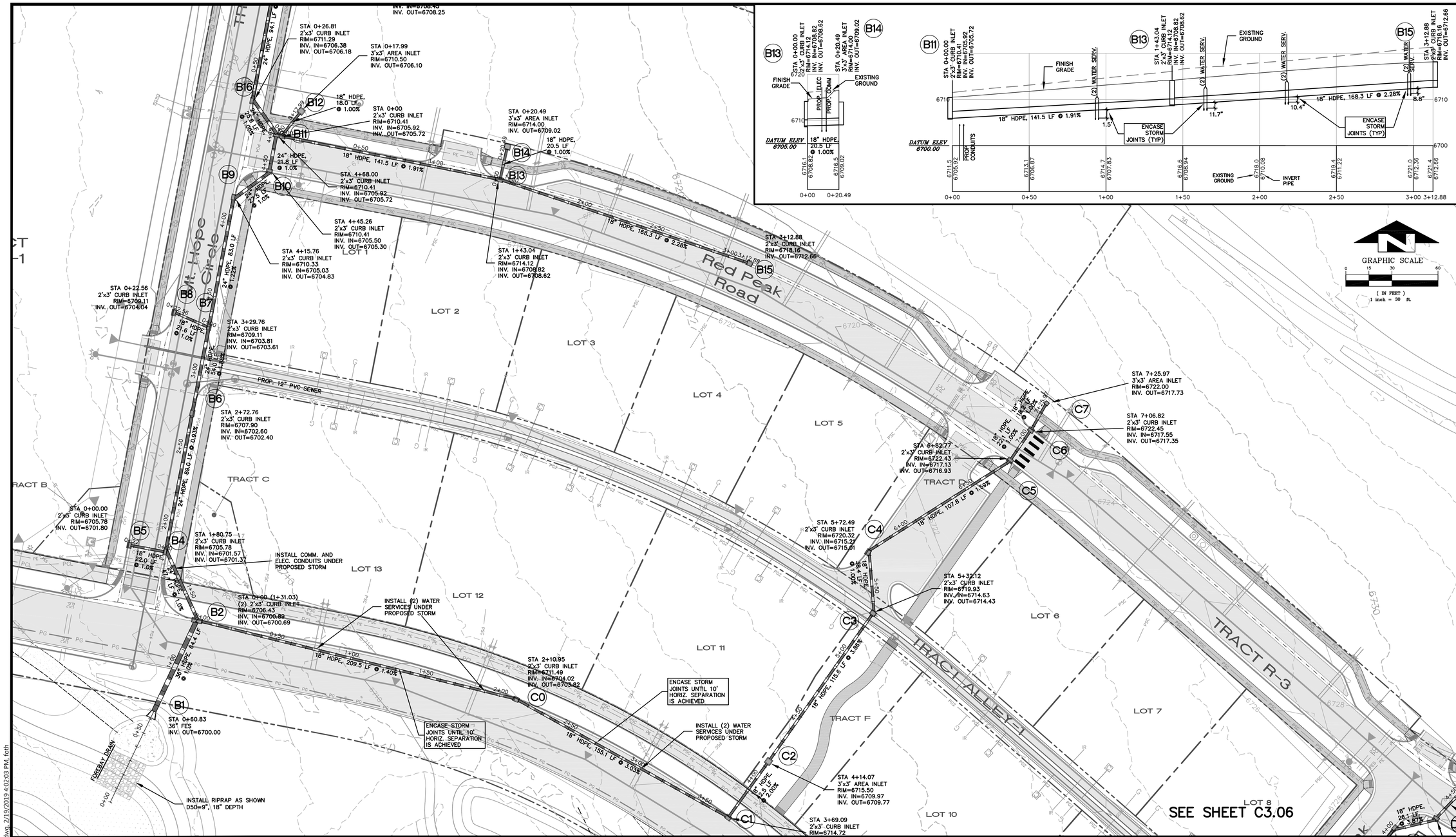
HAYMEADOW FILING 1

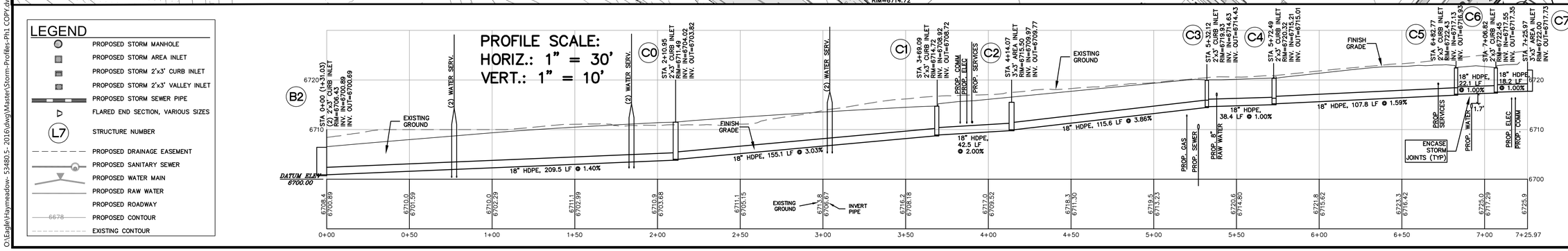
STORM PLAN AND PROFILE

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET
C3.04





LEGEND

- PROPOSED STORM MANHOLE
- PROPOSED STORM AREA INLET
- PROPOSED STORM 2'x3' CURB INLET
- PROPOSED STORM 2'x3' VALLEY INLET
- PROPOSED STORM SEWER PIPE
- FLARED END SECTION, VARIOUS SIZES
- L7 STRUCTURE NUMBER
- PROPOSED DRAINAGE EASEMENT
- PROPOSED SANITARY SEWER
- PROPOSED WATER MAIN
- PROPOSED RAW WATER
- PROPOSED ROADWAY
- 6678 PROPOSED CONTOUR
- EXISTING CONTOUR

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HAYMEADOW FILING 1

STORM PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C3.05

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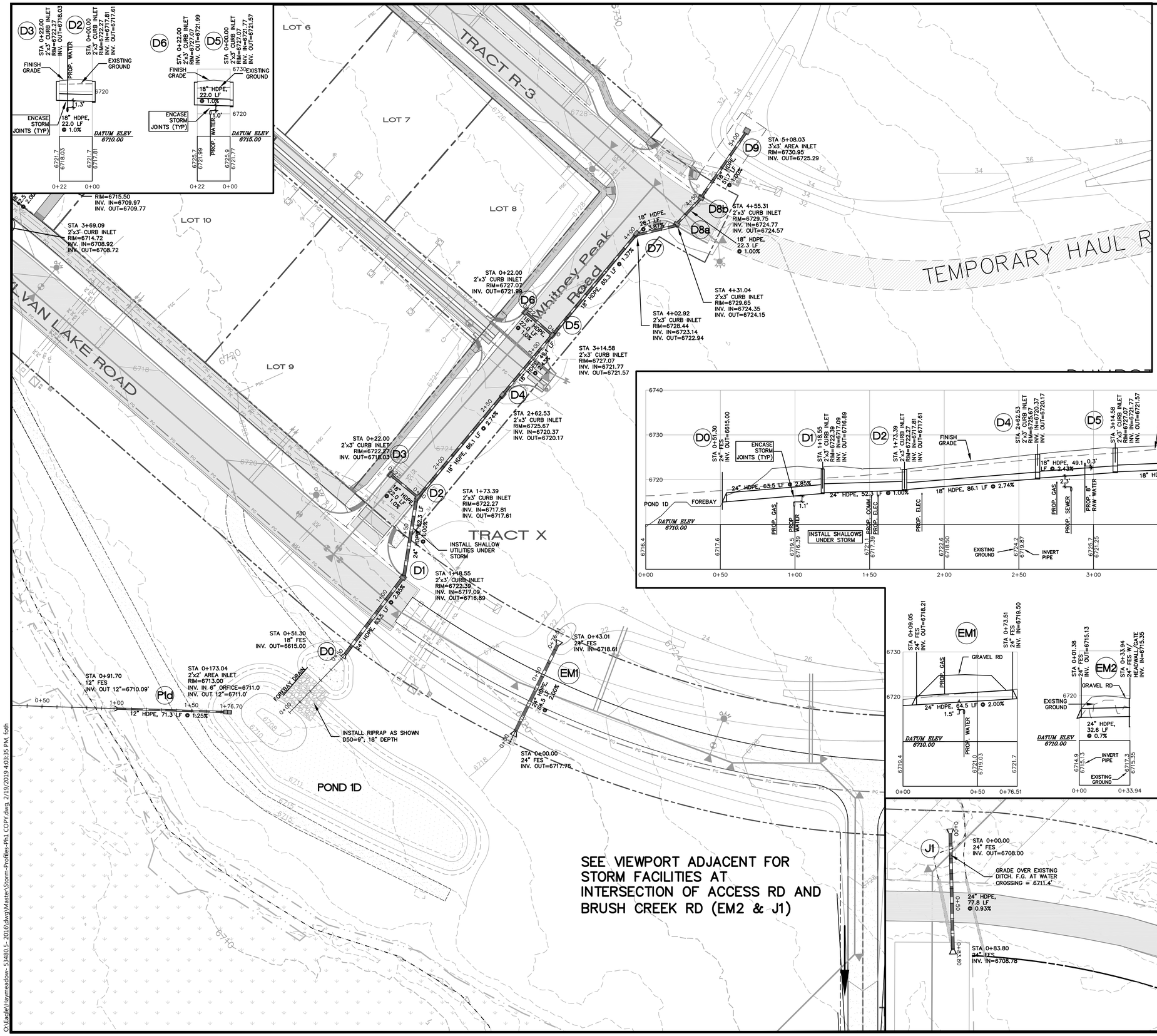

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	02/20/2019	RESPONSE TO COMMENTS	GB

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SHEET C3.06

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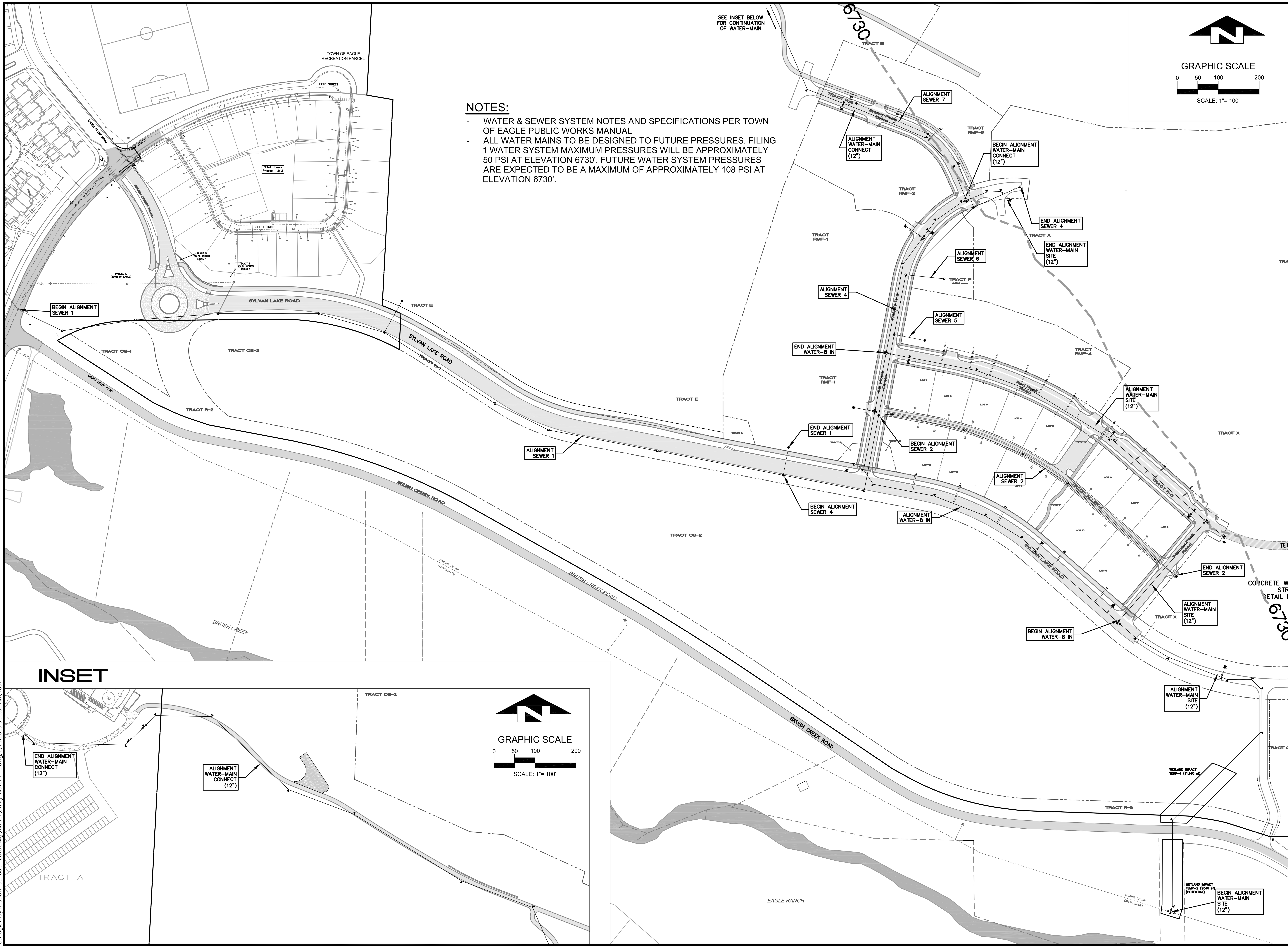

NOTES:

- WATER & SEWER SYSTEM NOTES AND SPECIFICATIONS PER TOWN OF EAGLE PUBLIC WORKS MANUAL
- ALL WATER MAINS TO BE DESIGNED TO FUTURE PRESSURES. FILING 1 WATER SYSTEM MAXIMUM PRESSURES WILL BE APPROXIMATELY 50 PSI AT ELEVATION 6730'. FUTURE WATER SYSTEM PRESSURES ARE EXPECTED TO BE A MAXIMUM OF APPROXIMATELY 108 PSI AT ELEVATION 6730'.

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OVERALL WATER/SEWER PLAN

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CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C4.00

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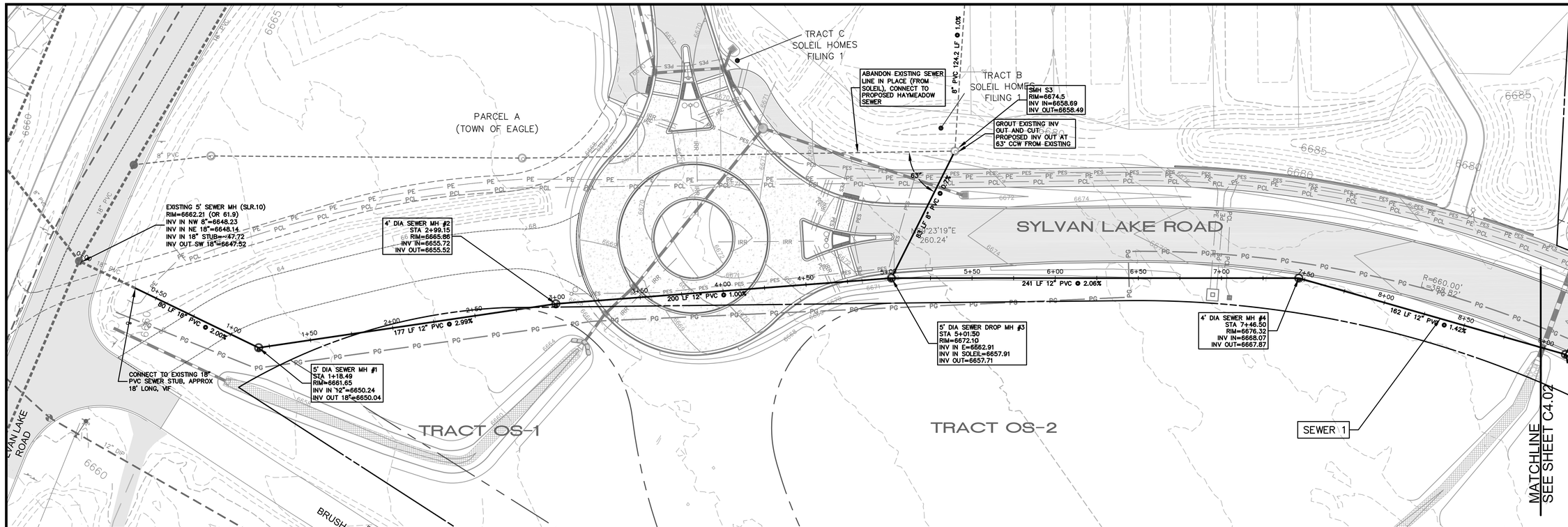


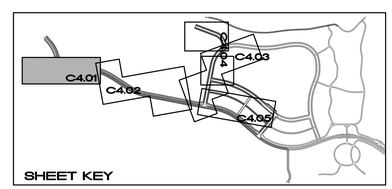
LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- 11.25° BEND
- 22.5° BEND
- 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

GRAPHIC SCALE

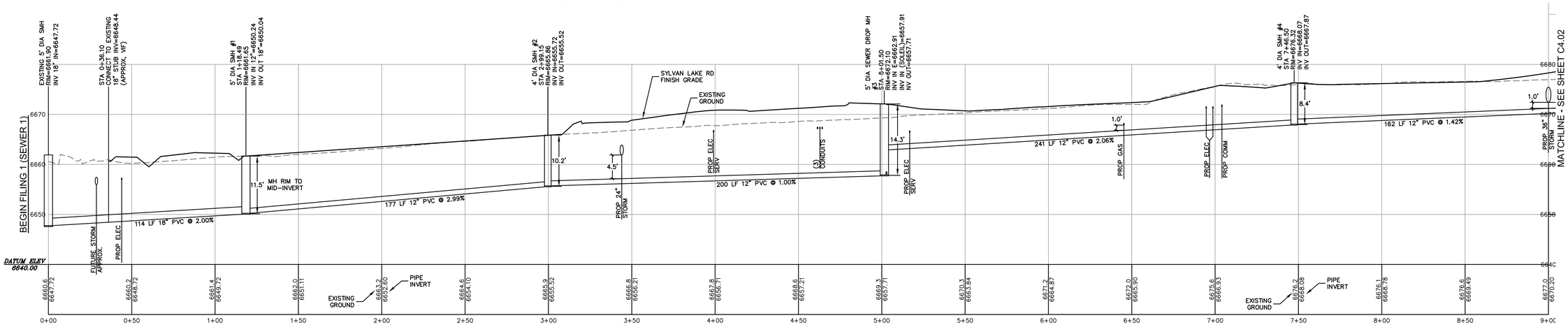
0 15 30 60

SCALE: 1"= 30'



PROFILE: SEWER 1

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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SEWER PLAN AND PROFILES

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DATE	02/20/2019

SHEET
C4.01

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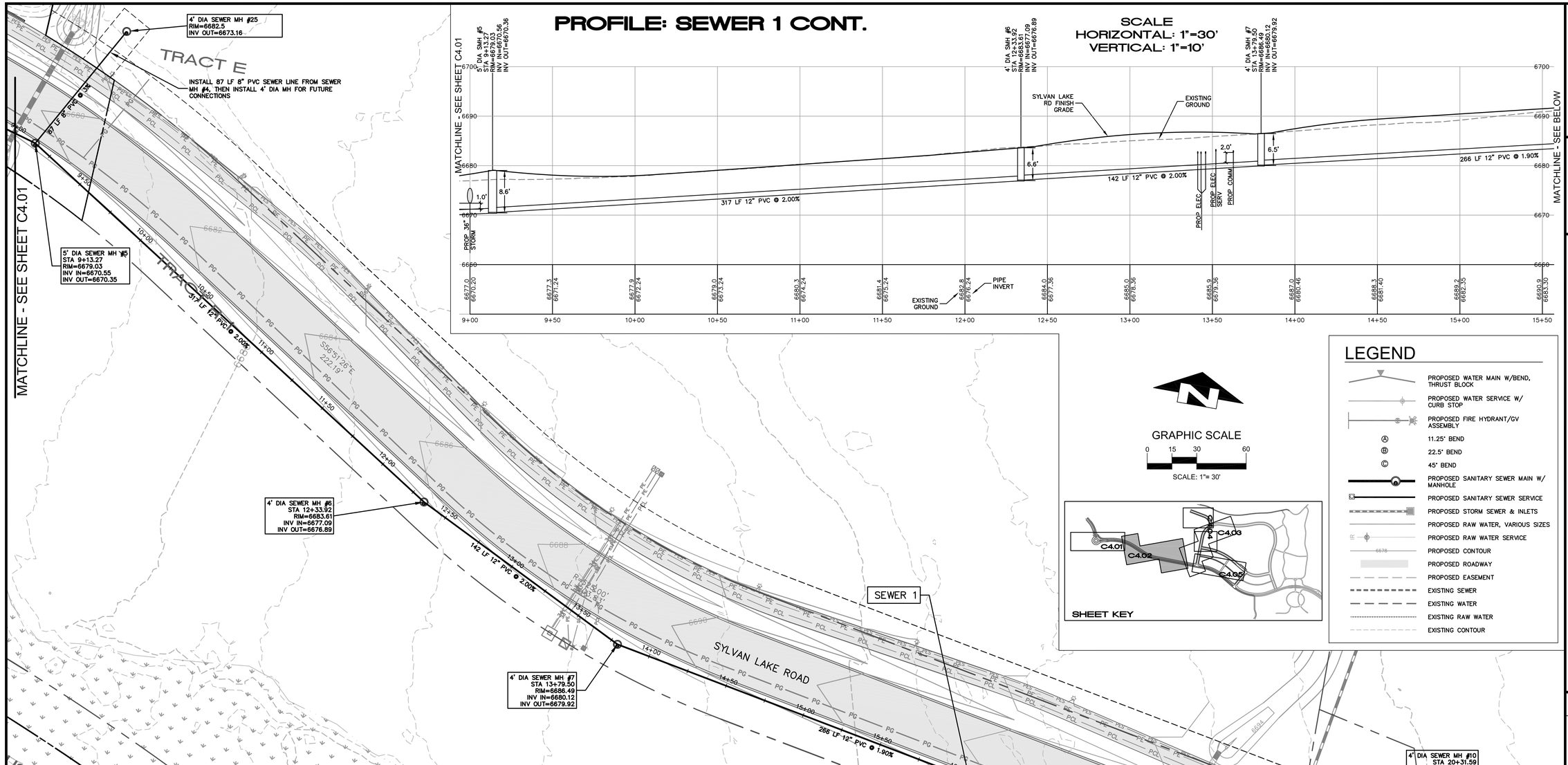
PROFILE: SEWER 1 CONT.

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



GRAPHIC SCALE
0 15 30 60
SCALE: 1"= 30'

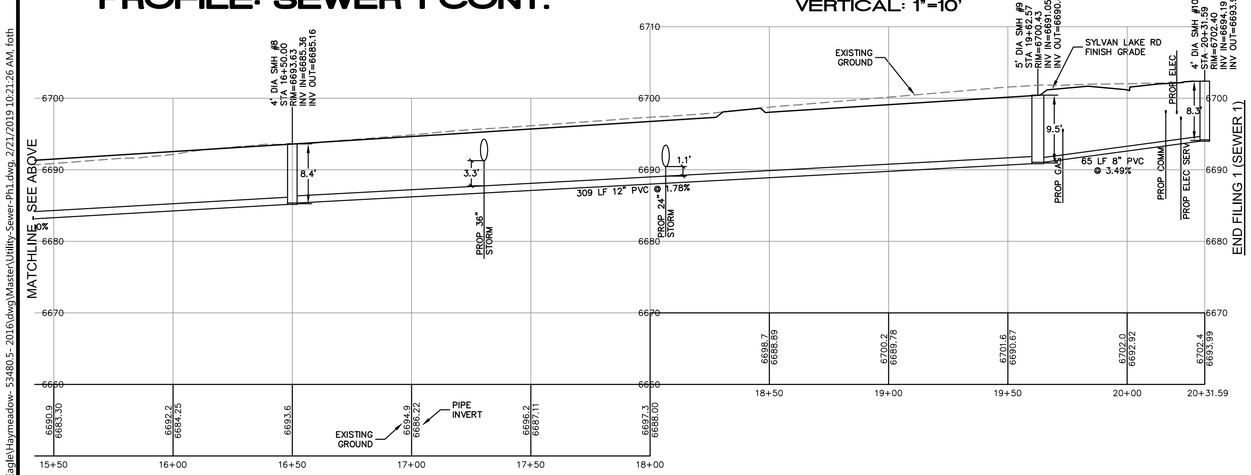
SHEET KEY

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- 11.25° BEND
- 22.5° BEND
- 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

PROFILE: SEWER 1 CONT.

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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SEWER PLAN AND PROFILES

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SHEET
C4.02

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IN ACCORDANCE WITH TOE PUBLIC WORKS MANUAL (SECTION 1.08), INSTALL C-900 WITH HARCO COUPLERS 10' EACH SIDE OF WATER LINE AT CROSSINGS

GRAPHIC SCALE

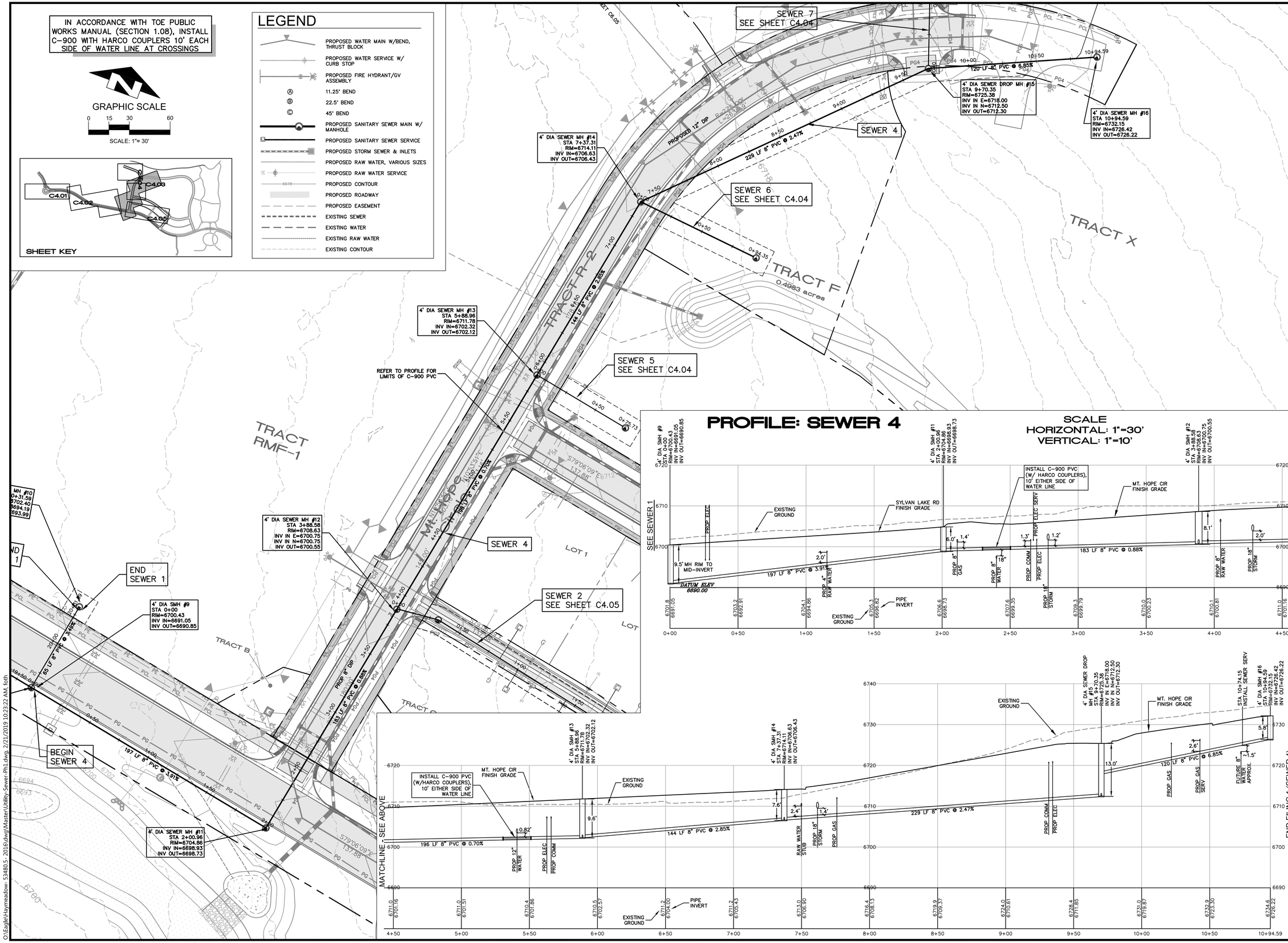
0 15 30 60

SCALE: 1"= 30'

SHEET KEY

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- 11.25° BEND
- 22.5° BEND
- 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR



PROFILE: SEWER 4

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

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SEWER PLAN AND PROFILES

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JOB NO.	53480.5
DATE	02/20/2019

SHEET C4.03

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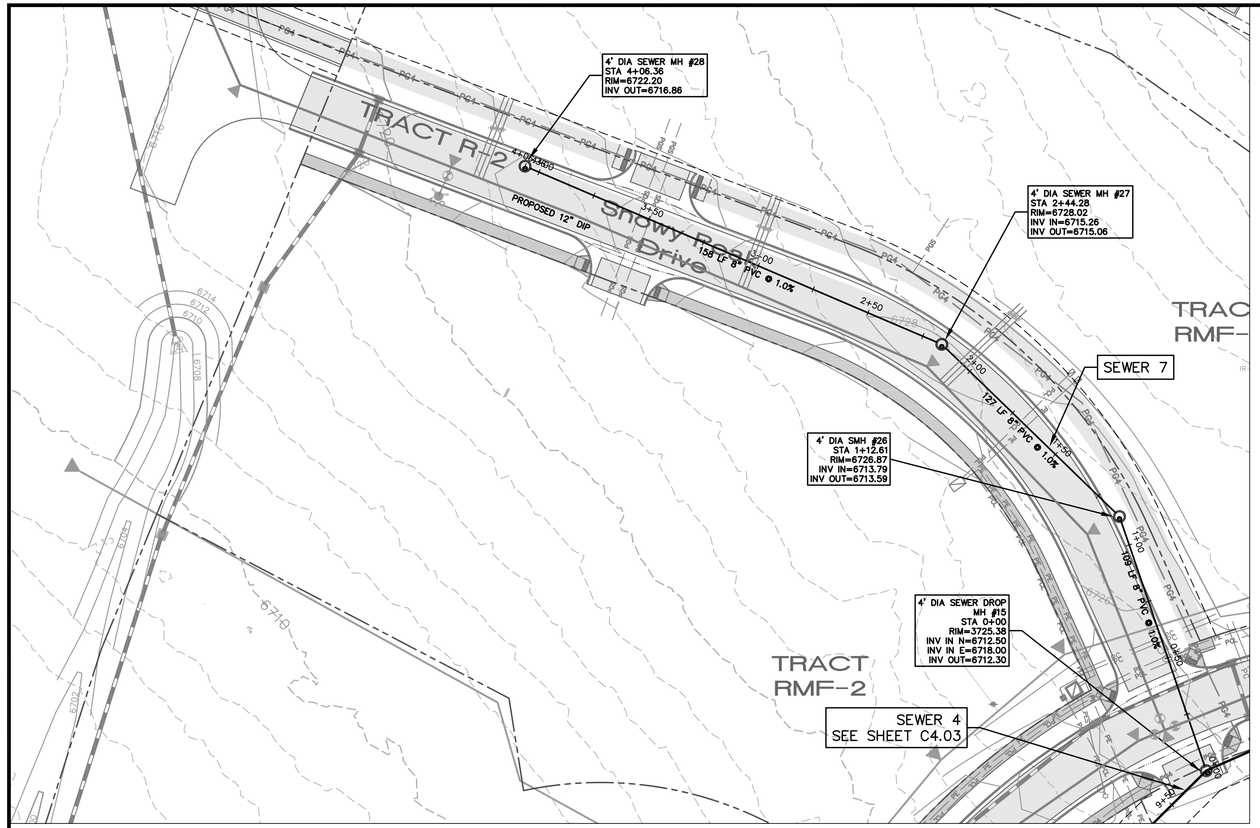
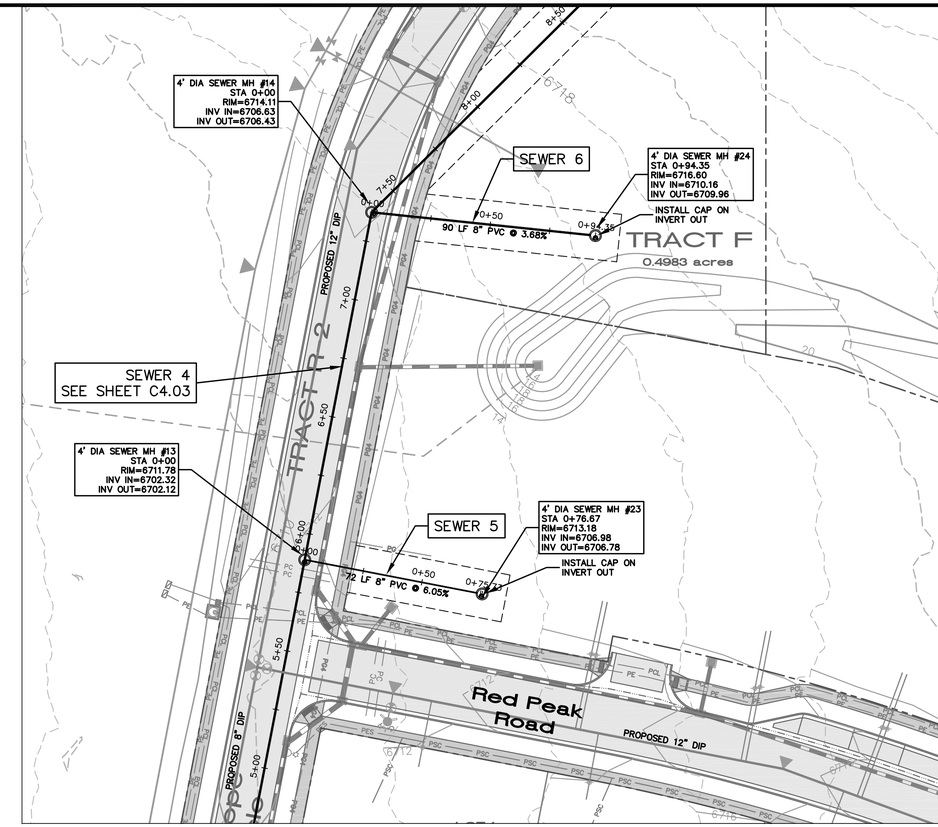
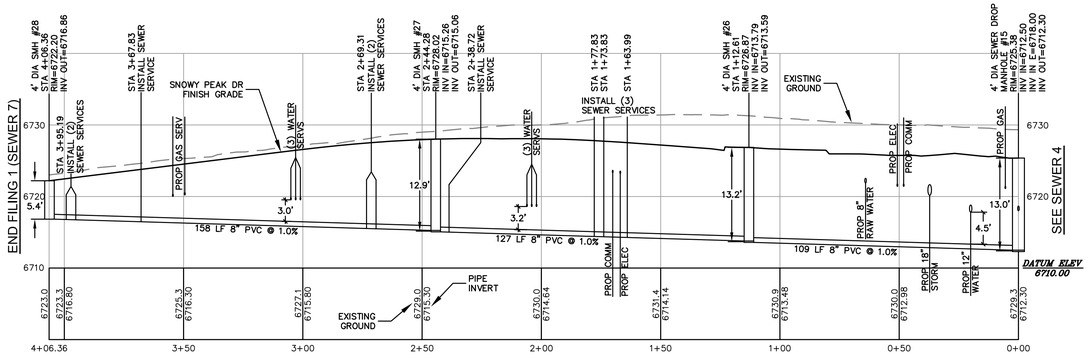
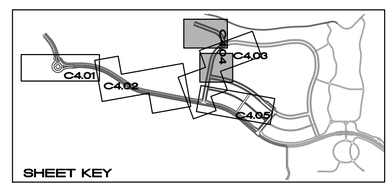




PROFILE: SEWER 7

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



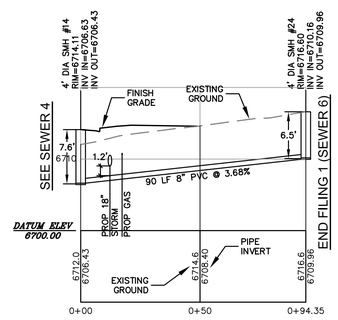


GRAPHIC SCALE
0 15 30 60
SCALE: 1"= 30'

LEGEND

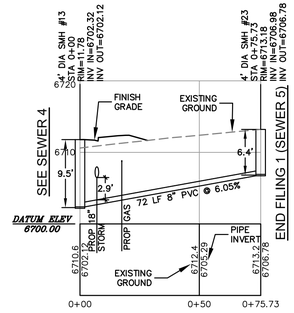
- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- (A) 11.25° BEND
- (B) 22.5° BEND
- (C) 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

PROFILE: SEWER 6



SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

PROFILE: SEWER 5



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SEWER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
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SHEET
C4.04

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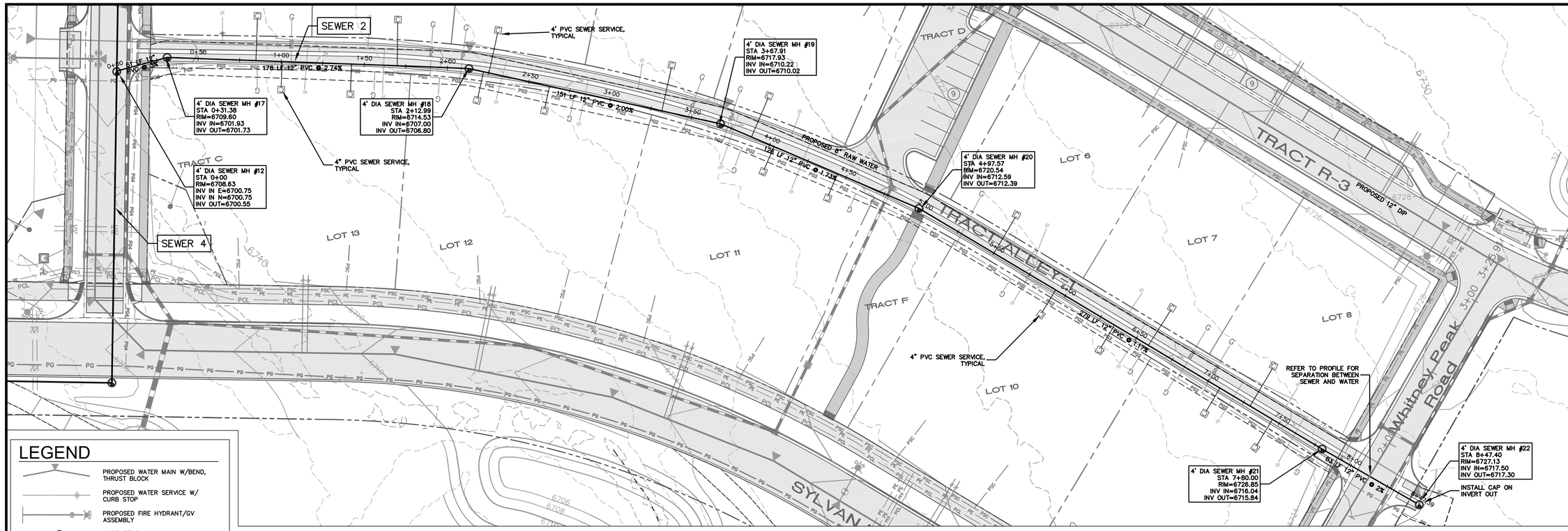
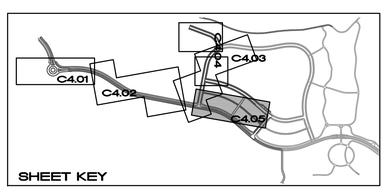


LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- (A) 11.25° BEND
- (B) 22.5° BEND
- (C) 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

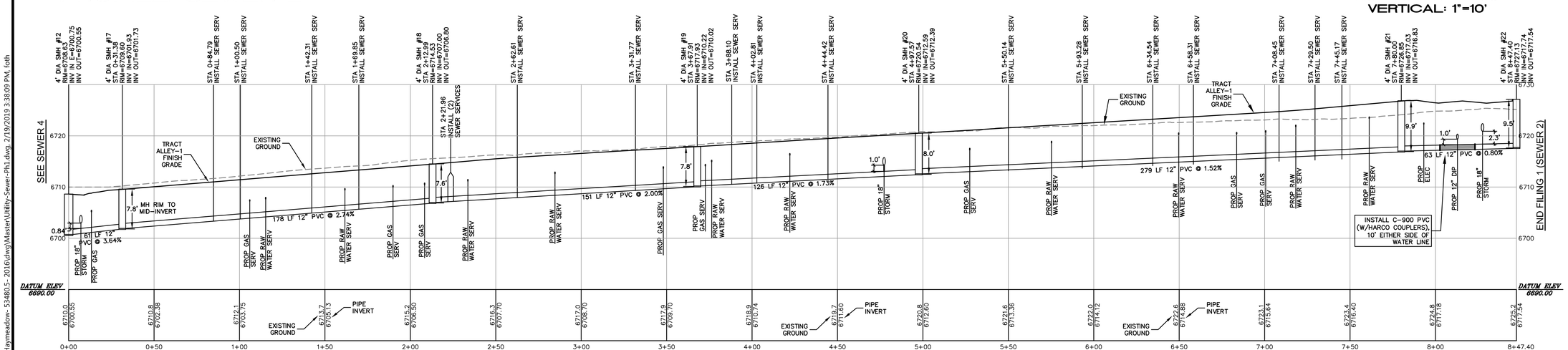


GRAPHIC SCALE
0 15 30 60
SCALE: 1"= 30'

IN ACCORDANCE WITH TOE PUBLIC WORKS MANUAL (SECTION 1.08), INSTALL C-900 WITH HARCO COUPLERS 10' EACH SIDE OF WATER LINE AT CROSSINGS

PROFILE: SEWER 2

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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SEWER PLAN AND PROFILES

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SHEET C4.05

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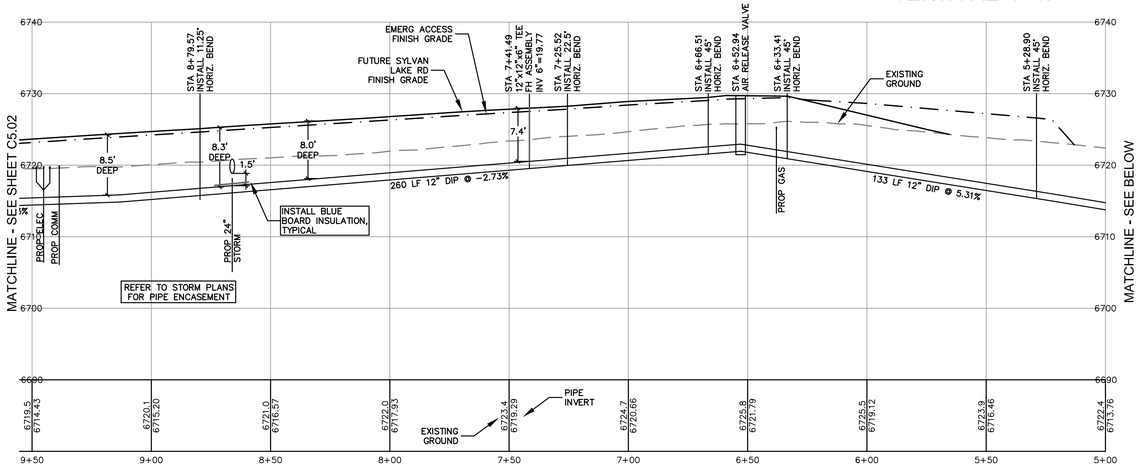
PROFILE: WATER-MAIN SITE (12") CONT.

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



REFER TO SHEETS C5.02-5.03 FOR CONTINUATION OF WATER-MAIN SITE

GRAPHIC SCALE

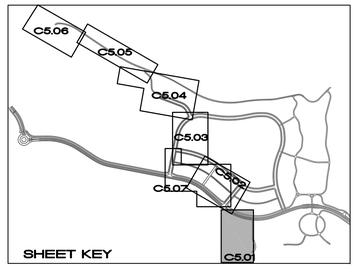
0 15 30 60

SCALE: 1"= 30'

FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08

FOR SANITARY SEWER PIPE TYPE WHERE SEWER AND WATER LINES CROSS, REFER TO SANITARY SEWER SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

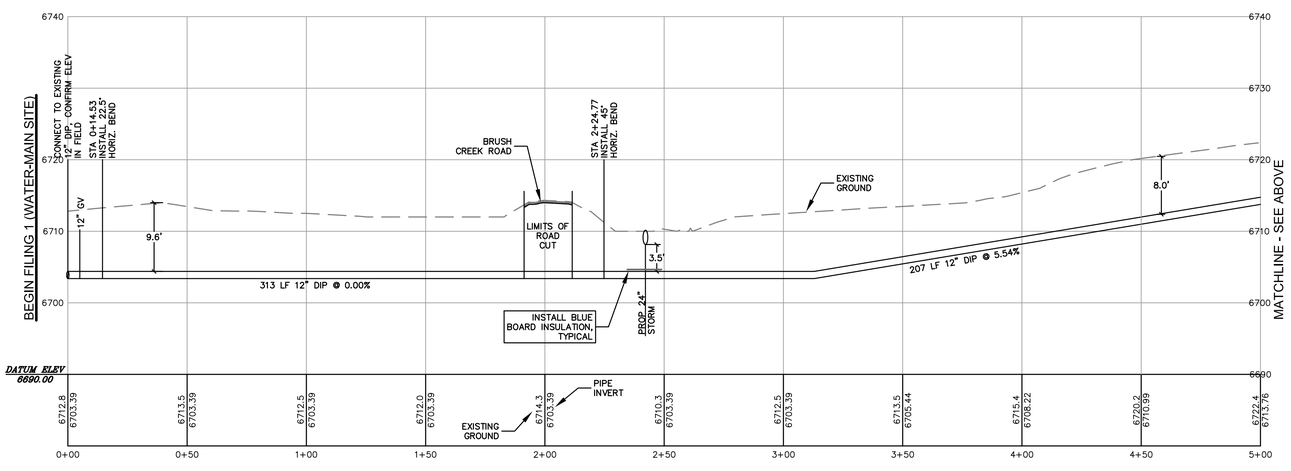


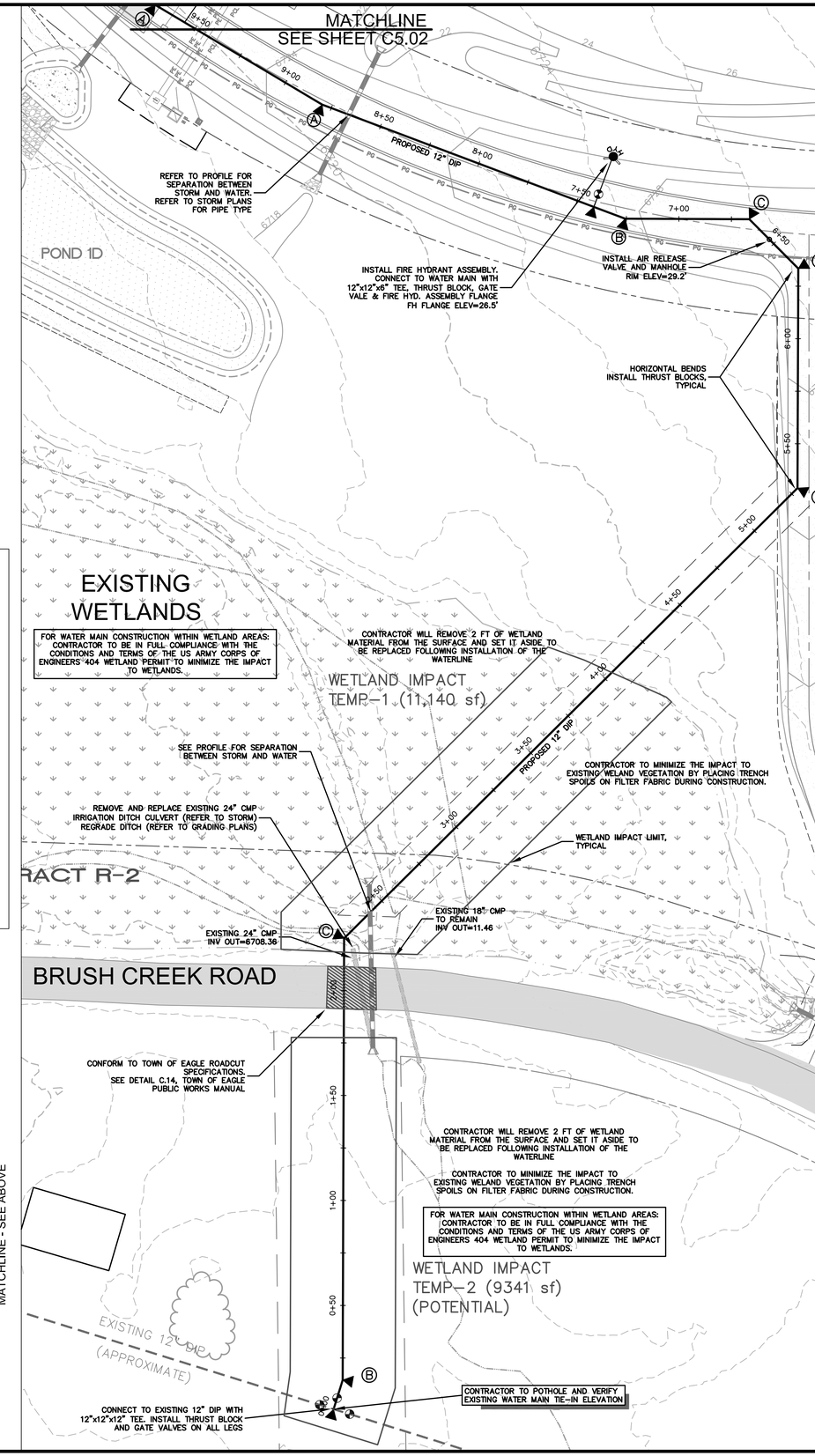
LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

PROFILE: WATER-MAIN SITE (12") START

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'





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WATER PLAN AND PROFILES

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SHEET C5.01

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LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- 11.25° BEND
- 22.5° BEND
- 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
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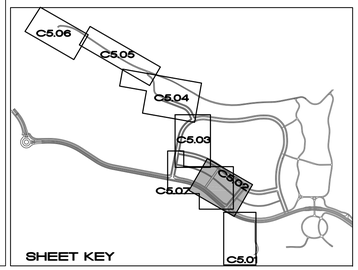
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

GRAPHIC SCALE

0 15 30 60

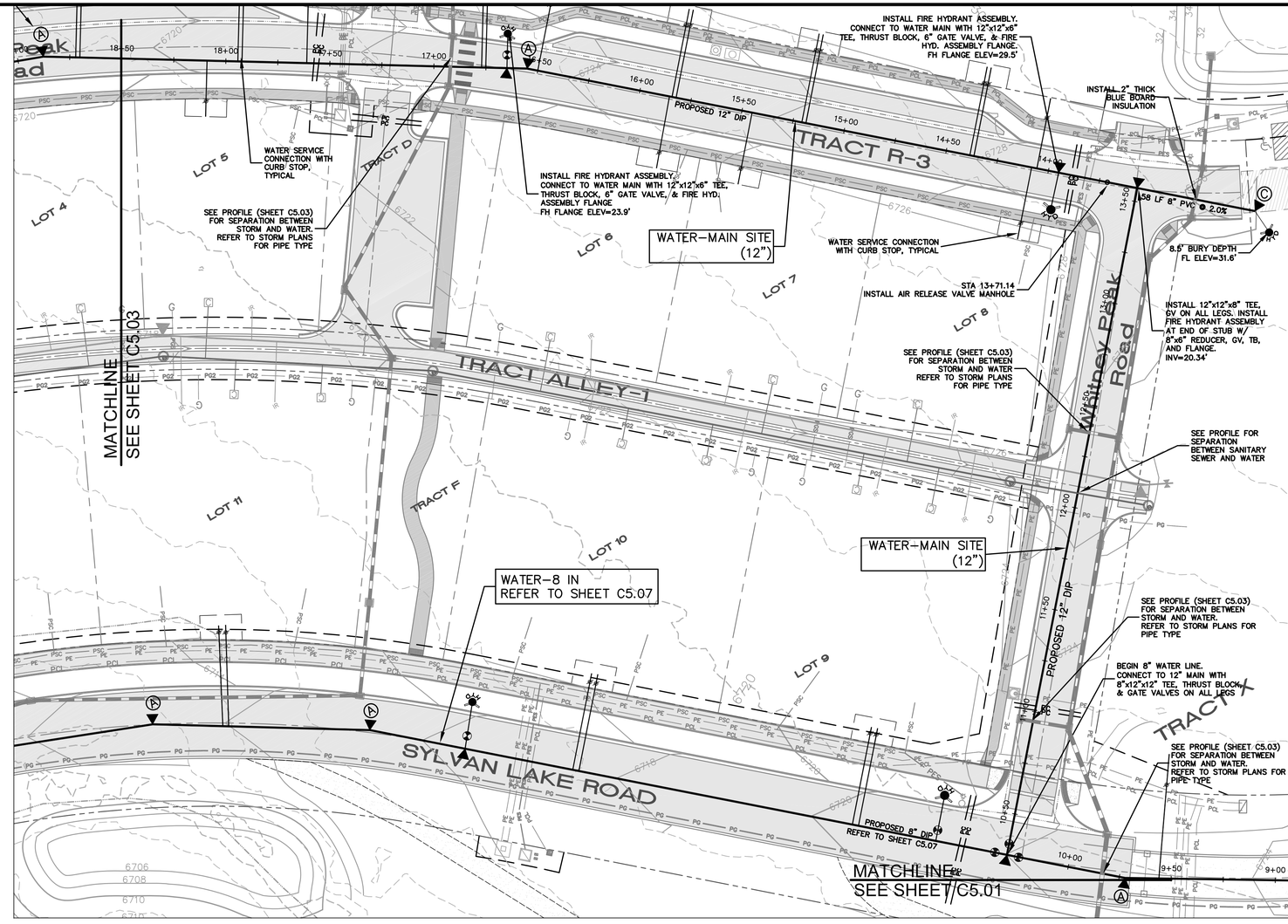
SCALE: 1"= 30'



FOR SANITARY SEWER PIPE TYPE WHERE SEWER AND WATER LINES CROSS, REFER TO SANITARY SEWER SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

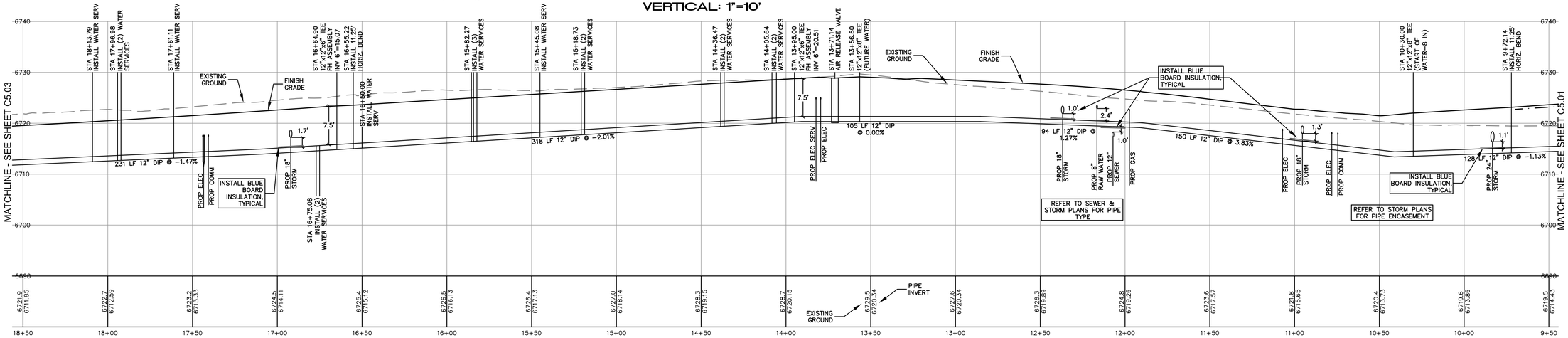
FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08



PROFILE: WATER-MAIN SITE (12") CONT.

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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COLORADO LICENSED
MATTHEW C. WEIGHT
11-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

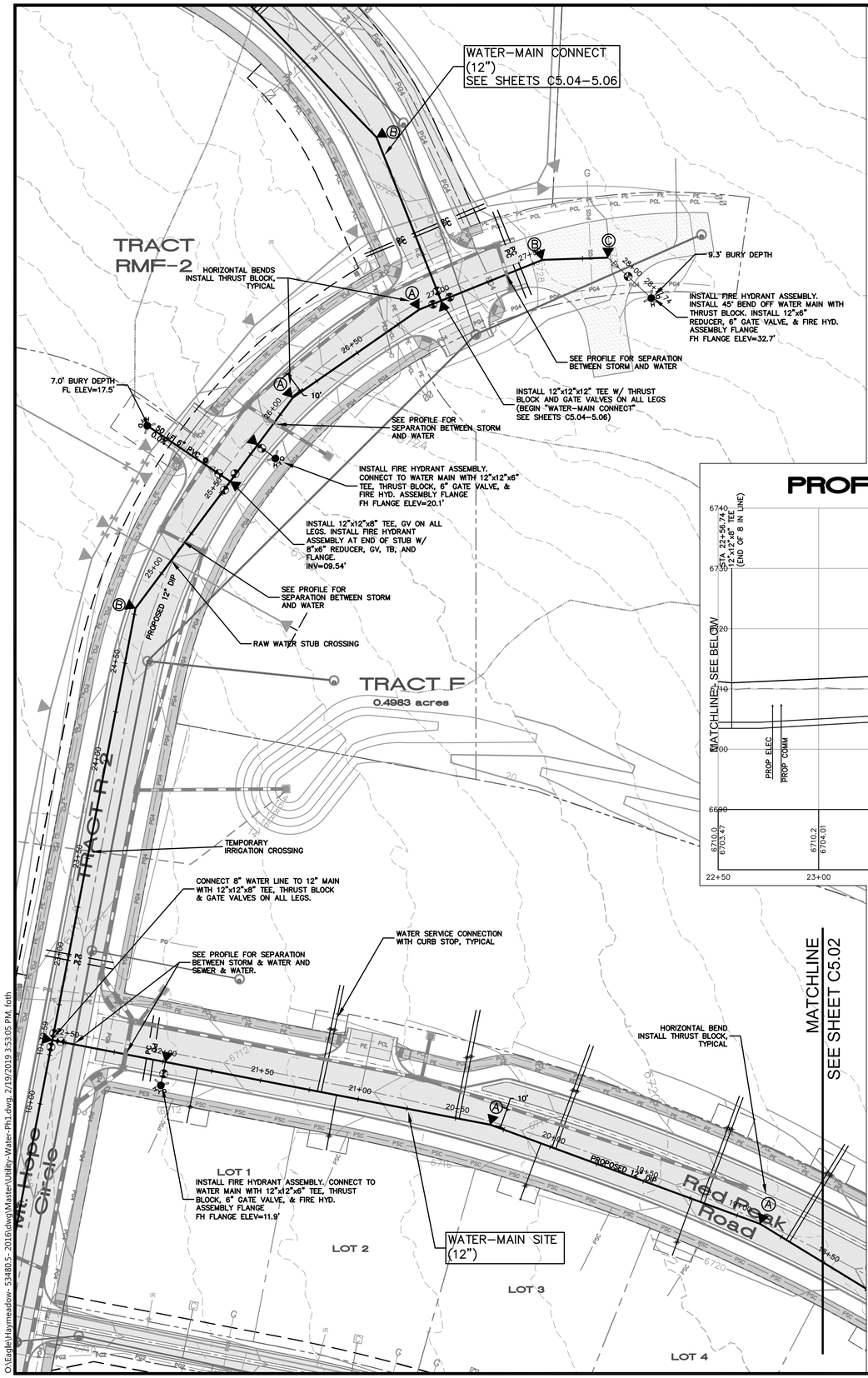
WATER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C5.02

O:\Eagle\Haymeadow- 53480.5- 2016\dwg\Master\Utility-Water-Ph1.dwg, 2/19/2019 3:48:51 PM, foth



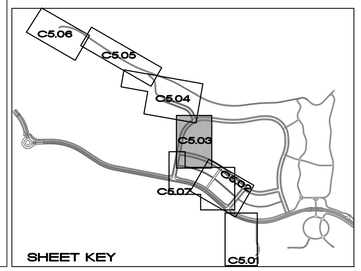
LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

GRAPHIC SCALE

0 15 30 60

SCALE: 1"= 30'

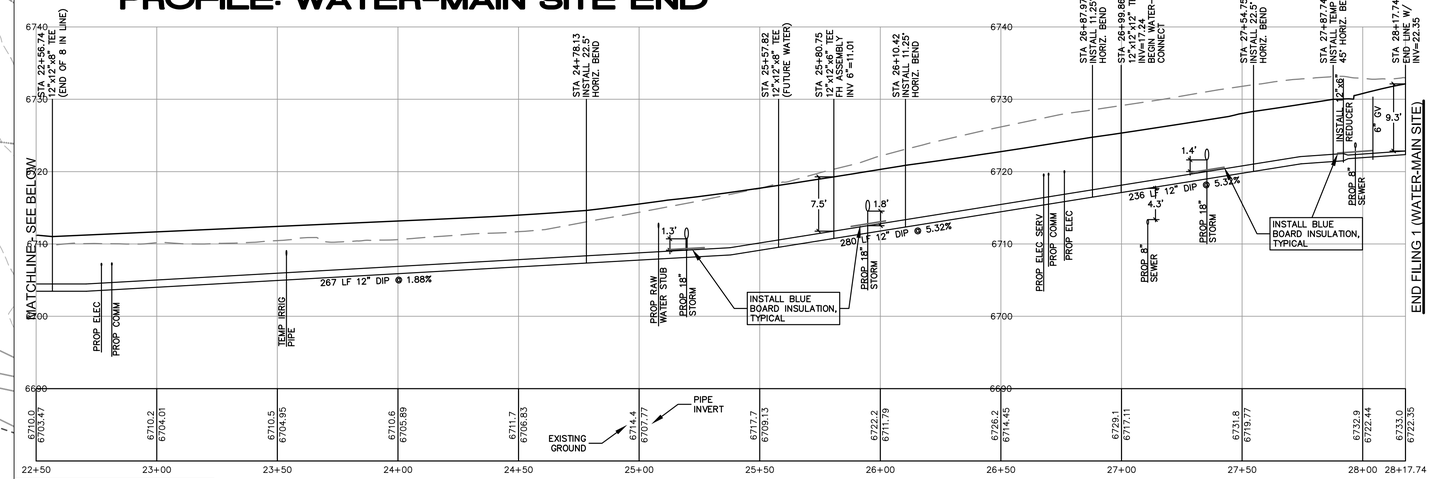


FOR SANITARY SEWER PIPE TYPE WHERE SEWER AND WATER LINES CROSS, REFER TO SANITARY SEWER SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

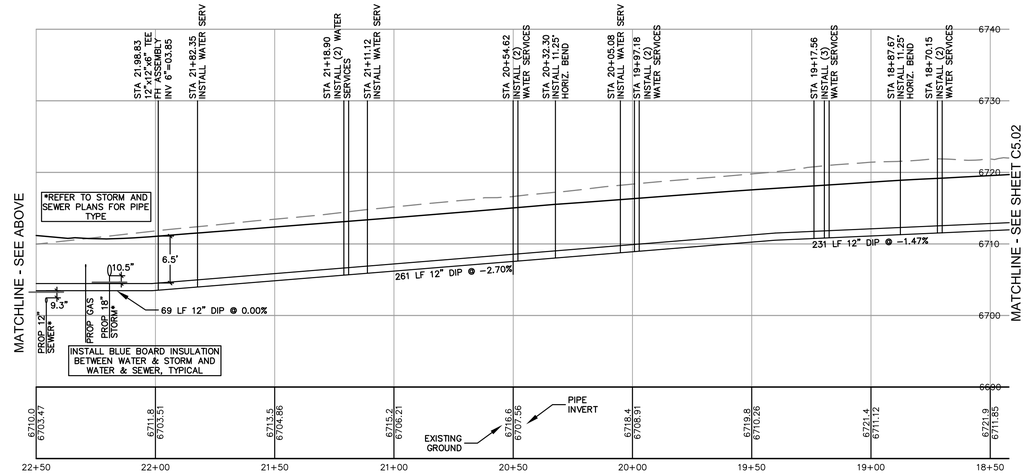
FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08

PROFILE: WATER-MAIN SITE END



SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

PROFILE: WATER-MAIN SITE CONT.



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HAYMEADOW FILING 1

WATER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C5.03

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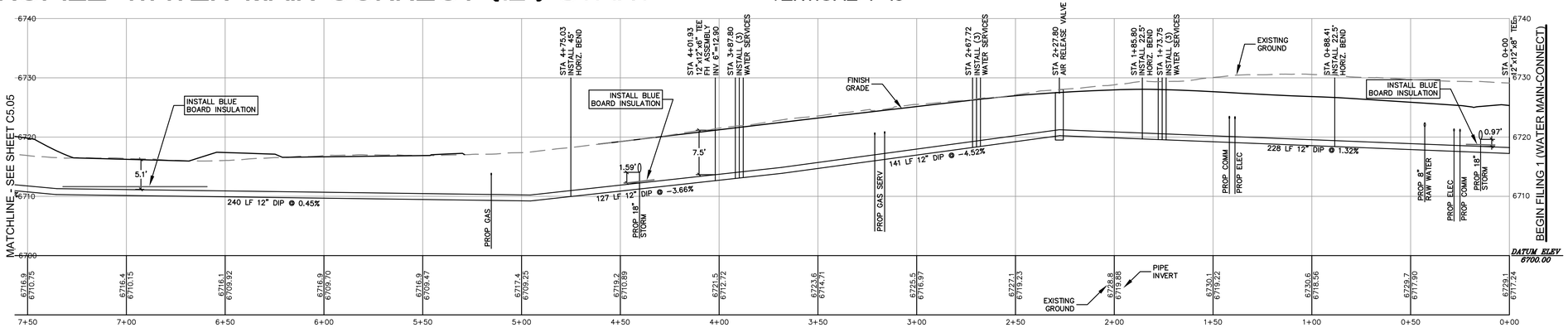
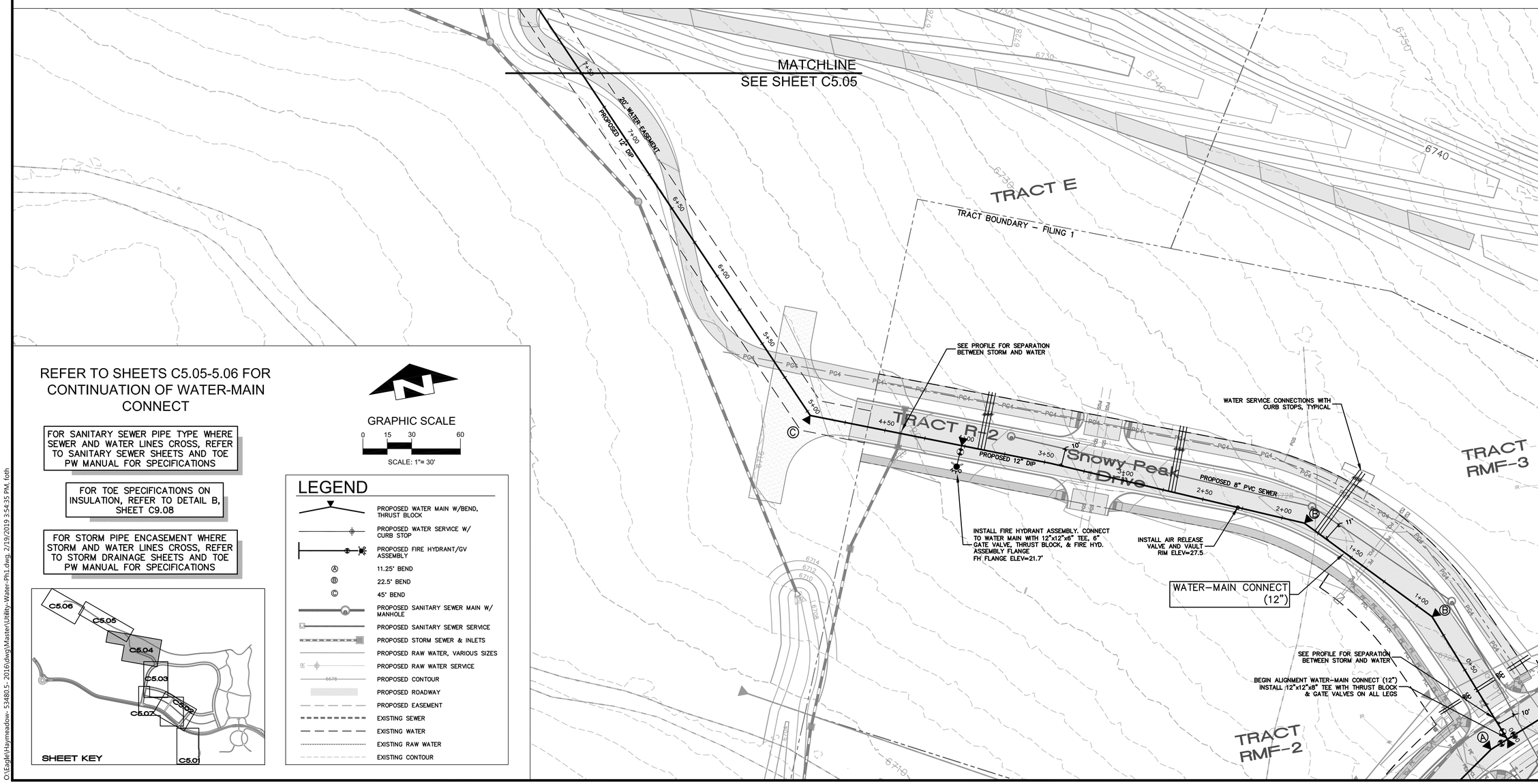
PROFILE: WATER-MAIN CONNECT (12") START

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'





REFER TO SHEETS C5.05-5.06 FOR CONTINUATION OF WATER-MAIN CONNECT

FOR SANITARY SEWER PIPE TYPE WHERE SEWER AND WATER LINES CROSS, REFER TO SANITARY SEWER SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08

FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

GRAPHIC SCALE
0 15 30 60
SCALE: 1"= 30'

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- 6678 PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

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MATTHEW C. WEAVER
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WATER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C5.04

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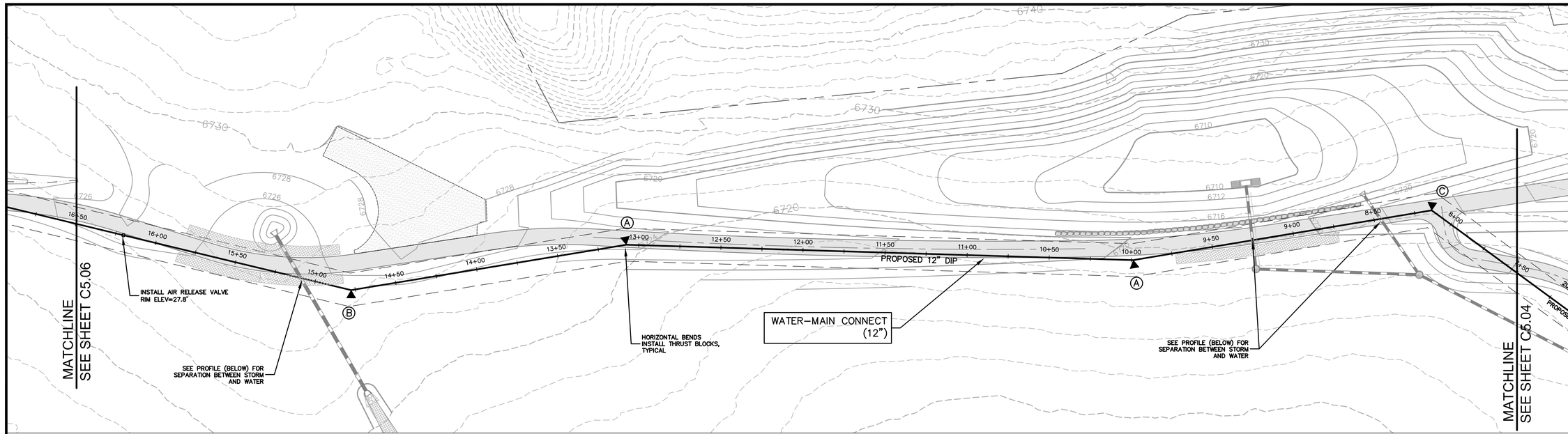
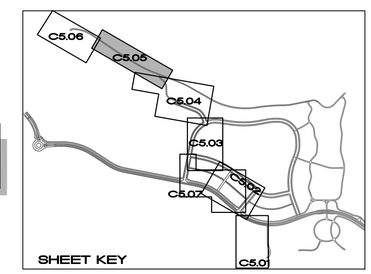


GRAPHIC SCALE

0 15 30 60

SCALE: 1"= 30'



FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

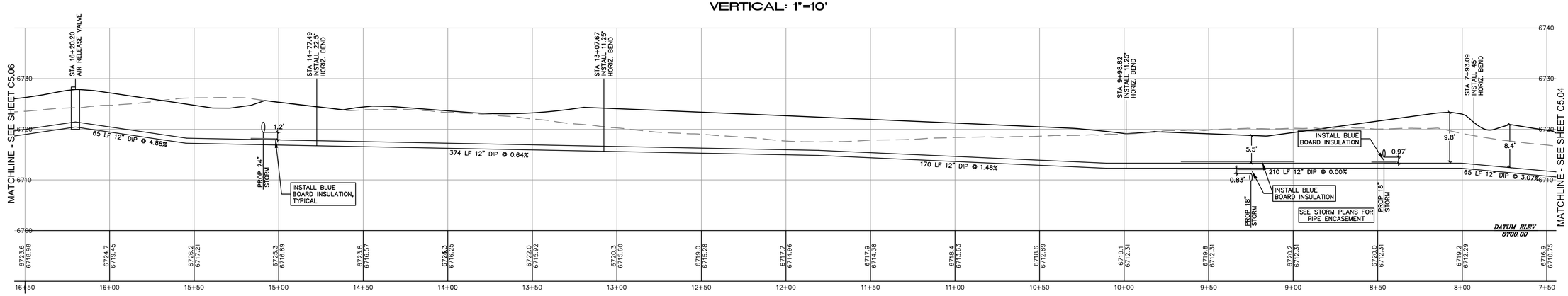
FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

PROFILE: WATER-MAIN CONNECT CONT.

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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MATTHEW C. BIRMINGHAM
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39865
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HAYMEADOW FILING 1

WATER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET
C5.05

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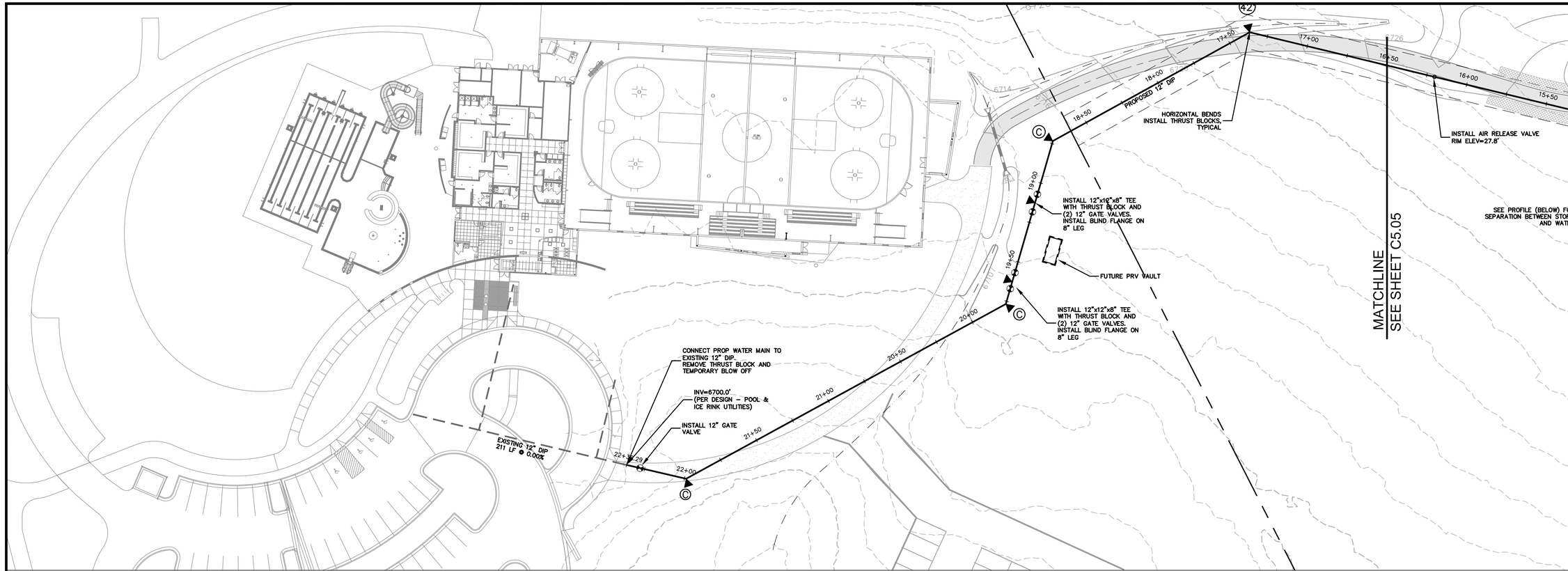
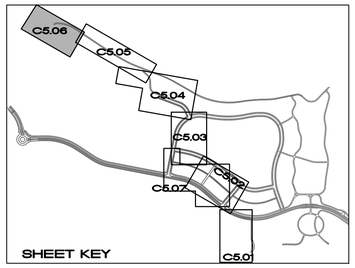


LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR



GRAPHIC SCALE

0 15 30 60

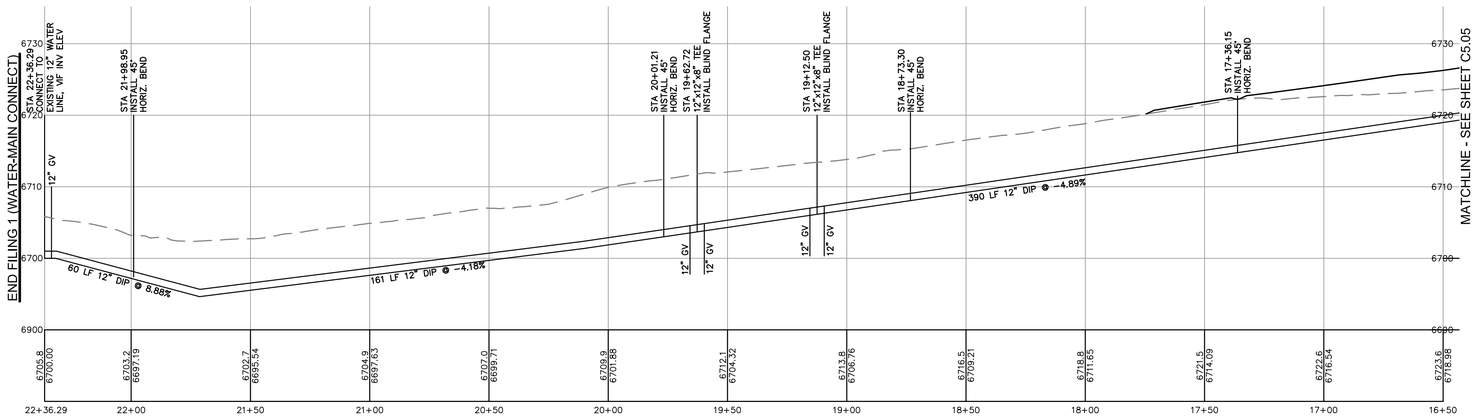
SCALE: 1"= 30'

FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08

PROFILE: WATER-MAIN CONNECT END

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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MATTHEW C. WEIER
11-8-18
39865

HAYMEADOW FILING 1

WATER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C5.06

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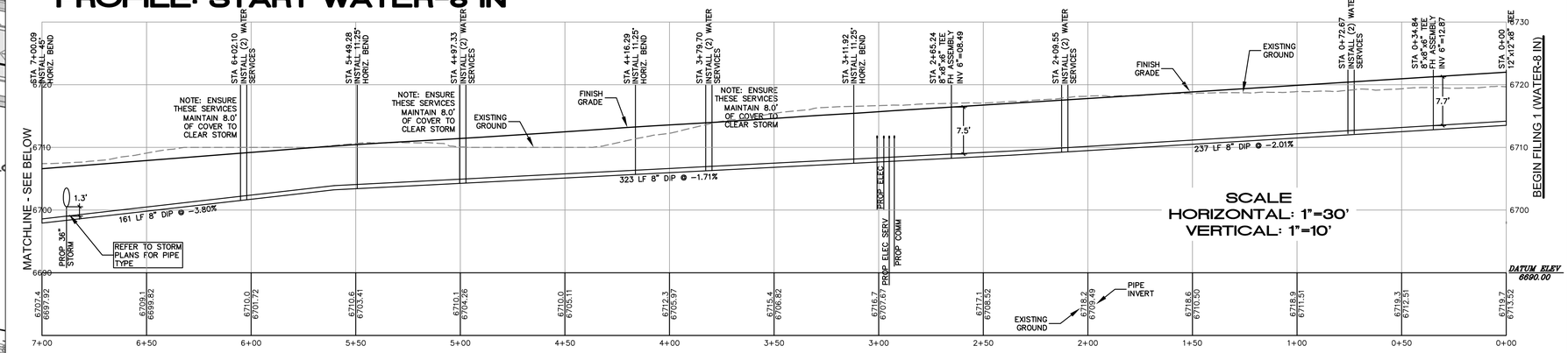
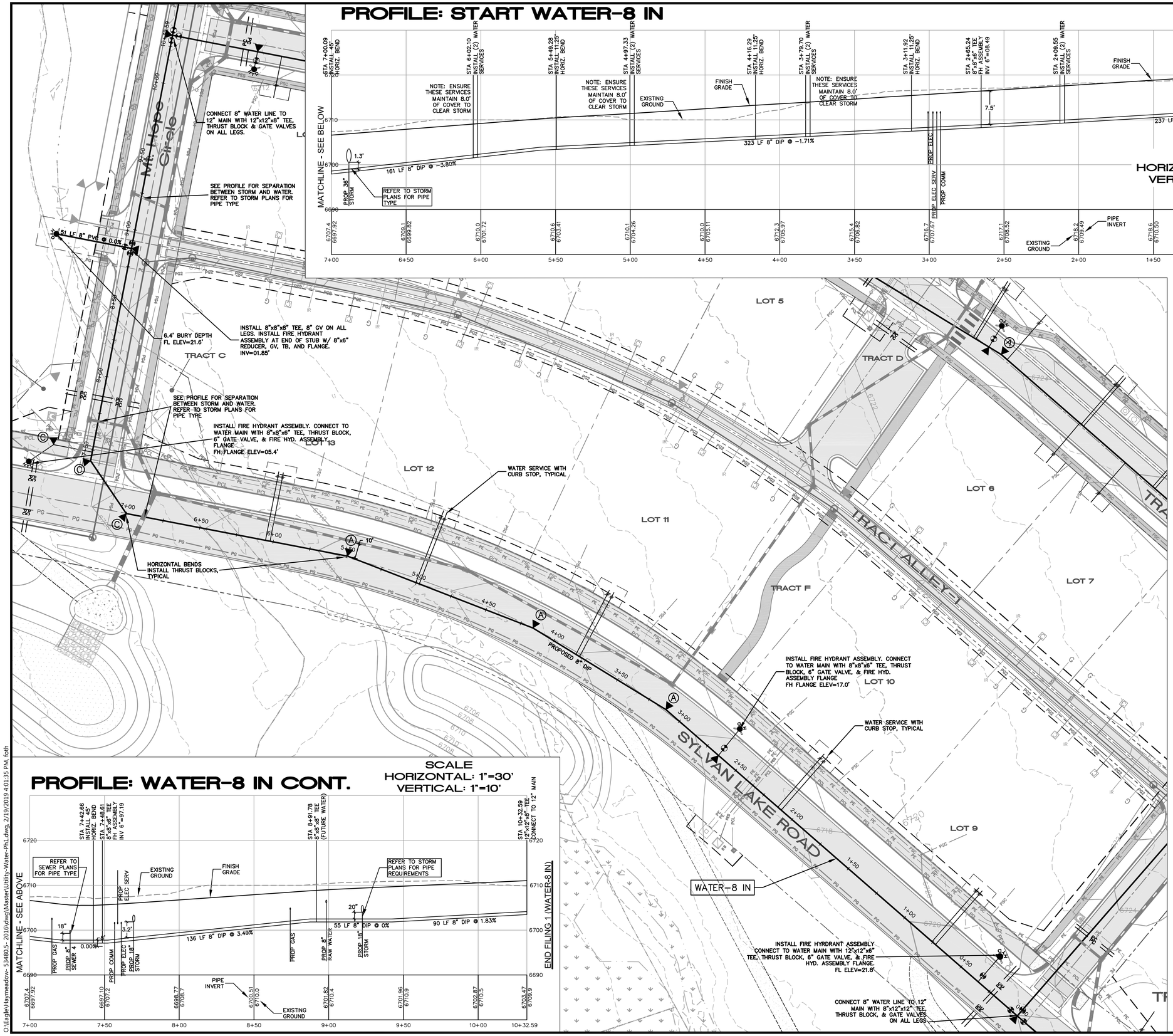
PROFILE: START WATER-8 IN





PROFILE: WATER-8 IN CONT.

FOR SANITARY SEWER PIPE TYPE WHERE SEWER AND WATER LINES CROSS, REFER TO SANITARY SEWER SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR STORM PIPE ENCASEMENT WHERE STORM AND WATER LINES CROSS, REFER TO STORM DRAINAGE SHEETS AND TOE PW MANUAL FOR SPECIFICATIONS

FOR TOE SPECIFICATIONS ON INSULATION, REFER TO DETAIL B, SHEET C9.08

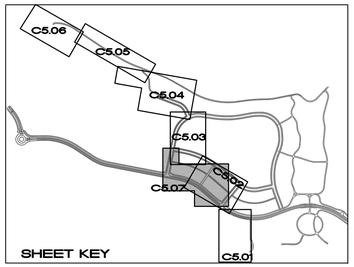
GRAPHIC SCALE

0 15 30 60

SCALE: 1"= 30'

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR



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MATTHEW C. WEIER
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HAYMEADOW FILING 1

WATER PLAN AND PROFILES

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C5.07

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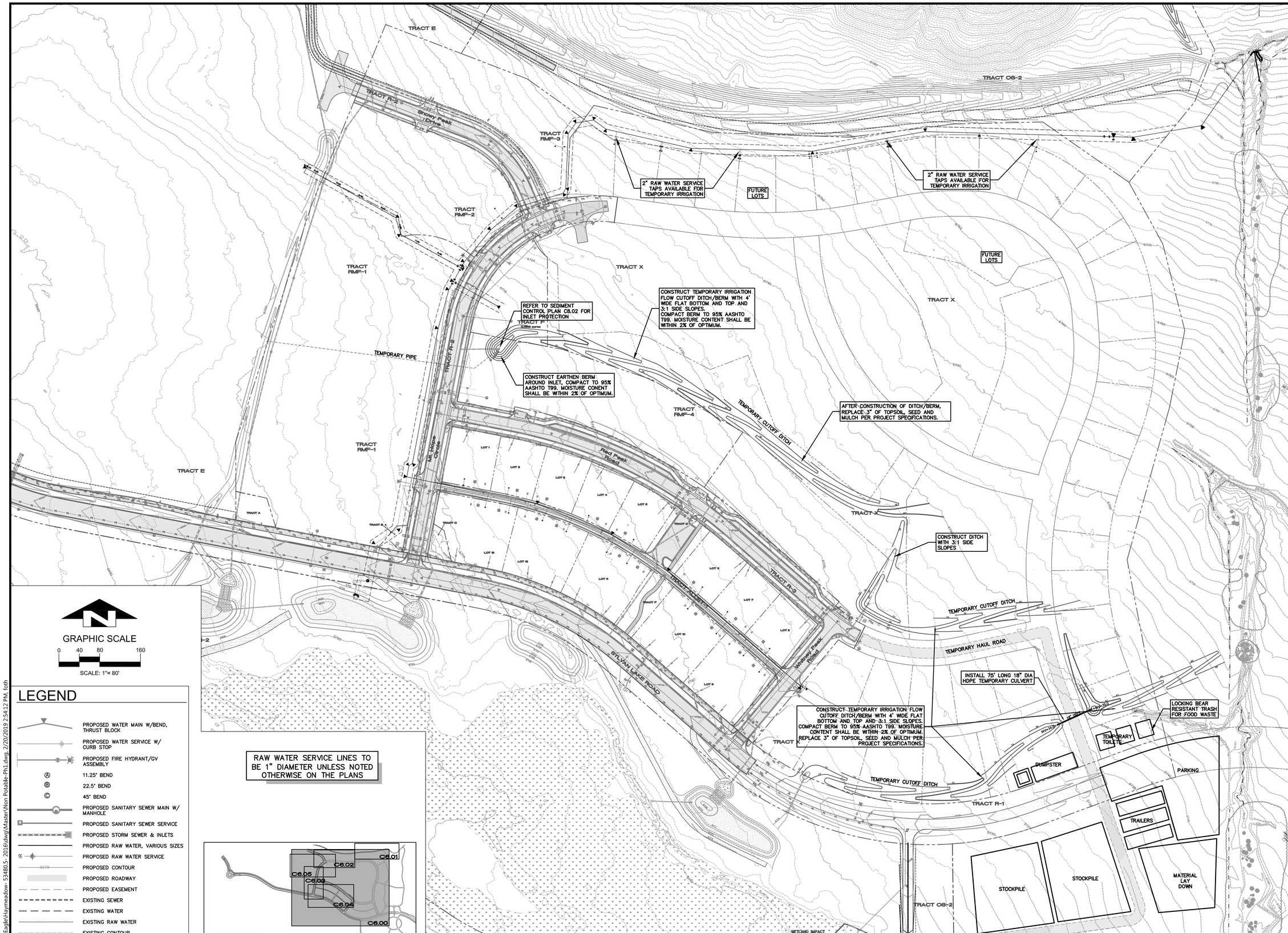

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- (A) 11.25° BEND
- (B) 22.5° BEND
- (C) 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- IR PROPOSED RAW WATER SERVICE
- 6678 PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

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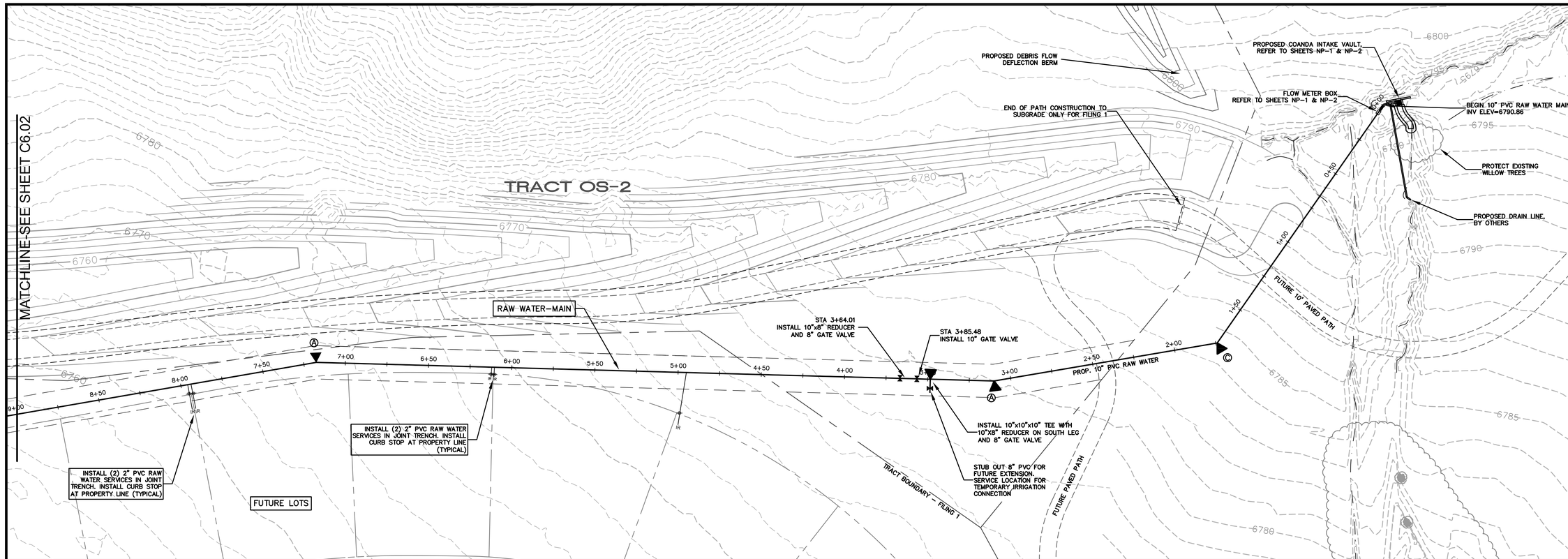
HAYMEADOW FILING 1

TEMPORARY IRRIGATION FLOW CUTOFF DITCH & BERM

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

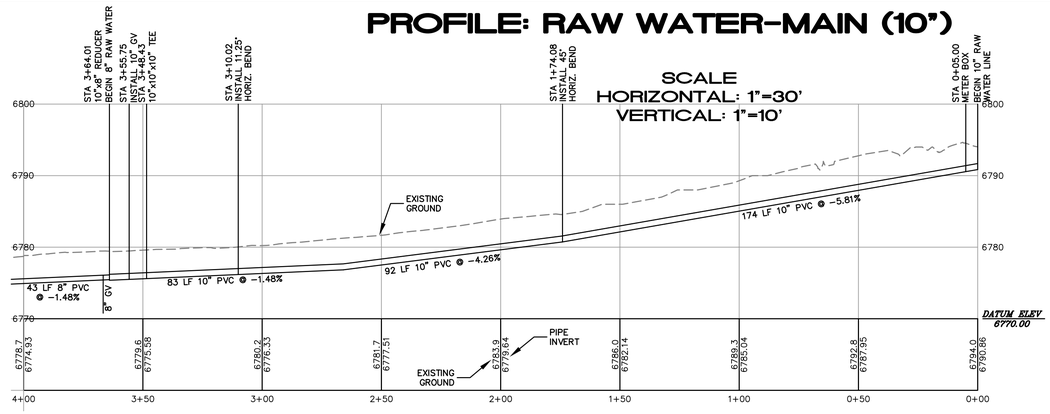
DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C6.00

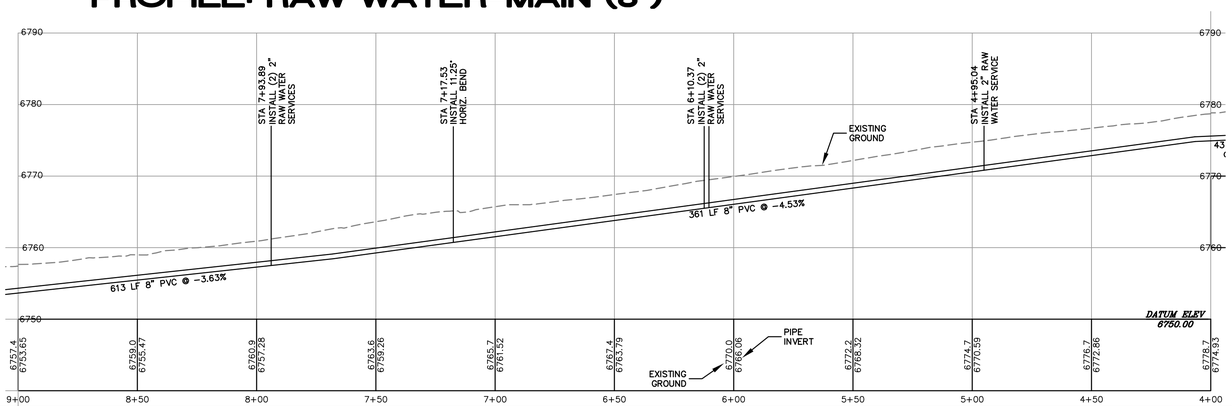


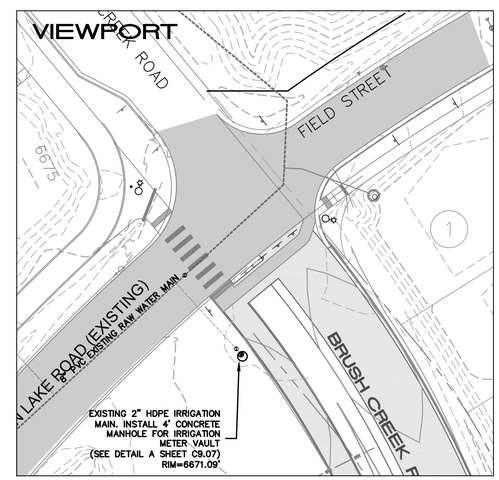
PROFILE: RAW WATER-MAIN (10")

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



PROFILE: RAW WATER-MAIN (8")





NON-POTABLE WATER SYSTEM TO BE CONSTRUCTED TO TOE WATER STANDARDS, REFER TO PW MANUAL

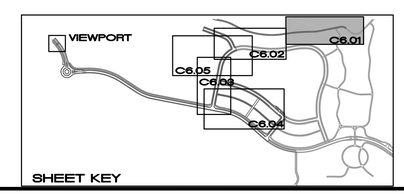
REFER TO SHEET NP-2 FOR SGM, INC. NON-POTABLE IRRIGATION SYSTEM NOTES

RAW WATER SERVICE LINES TO BE 1" DIAMETER UNLESS NOTED OTHERWISE ON THE PLANS

GRAPHIC SCALE
0 15 30 60
SCALE: 1"= 30'

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- A 11.25° BEND
- B 22.5° BEND
- C 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- IR PROPOSED RAW WATER SERVICE
- 6678 PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR



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NON-POTABLE PLAN & PROFILE

NO.	DATE	REVISIONS	BY
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	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C6.01

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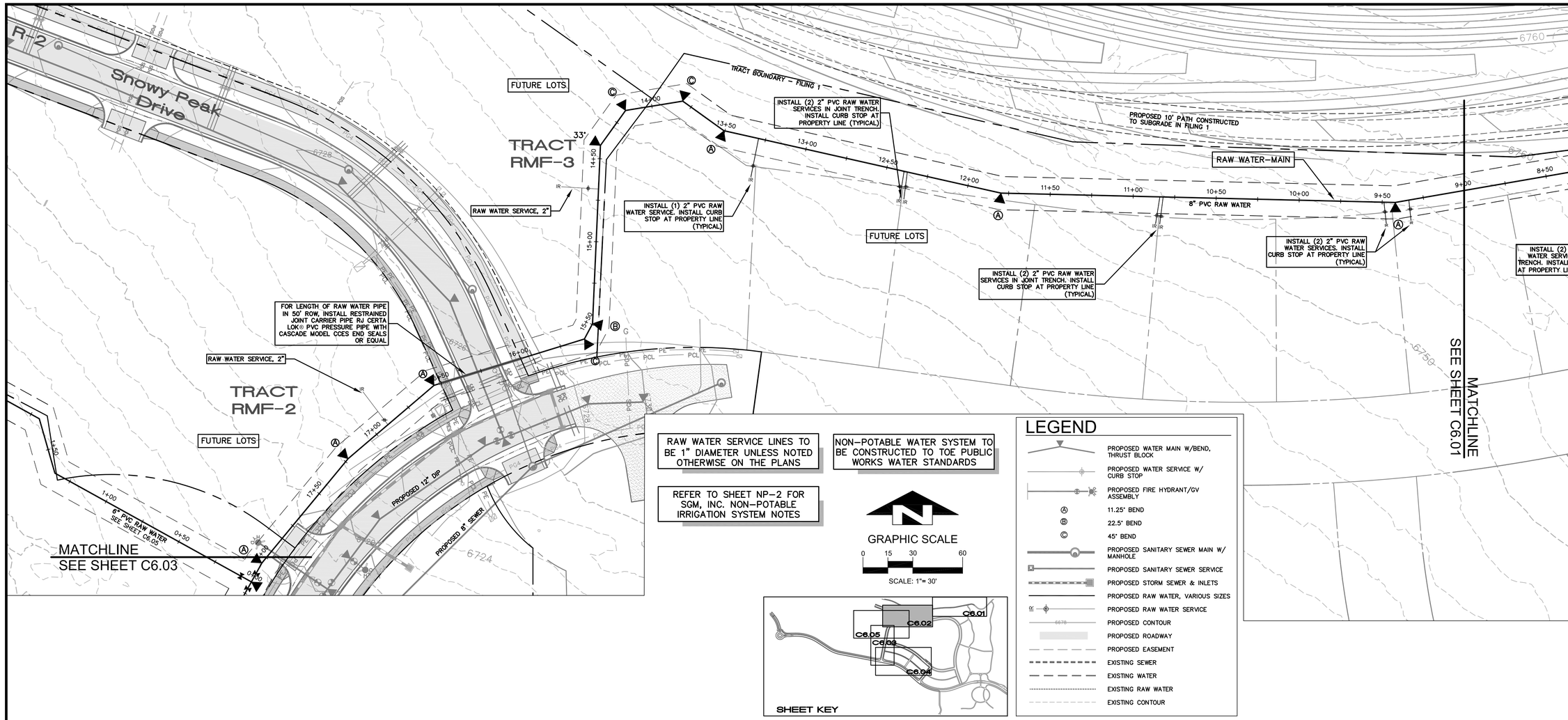


RAW WATER SERVICE LINES TO BE 1" DIAMETER UNLESS NOTED OTHERWISE ON THE PLANS

NON-POTABLE WATER SYSTEM TO BE CONSTRUCTED TO TOE PUBLIC WORKS WATER STANDARDS

REFER TO SHEET NP-2 FOR SGM, INC. NON-POTABLE IRRIGATION SYSTEM NOTES

GRAPHIC SCALE

0 15 30 60

SCALE: 1"= 30'

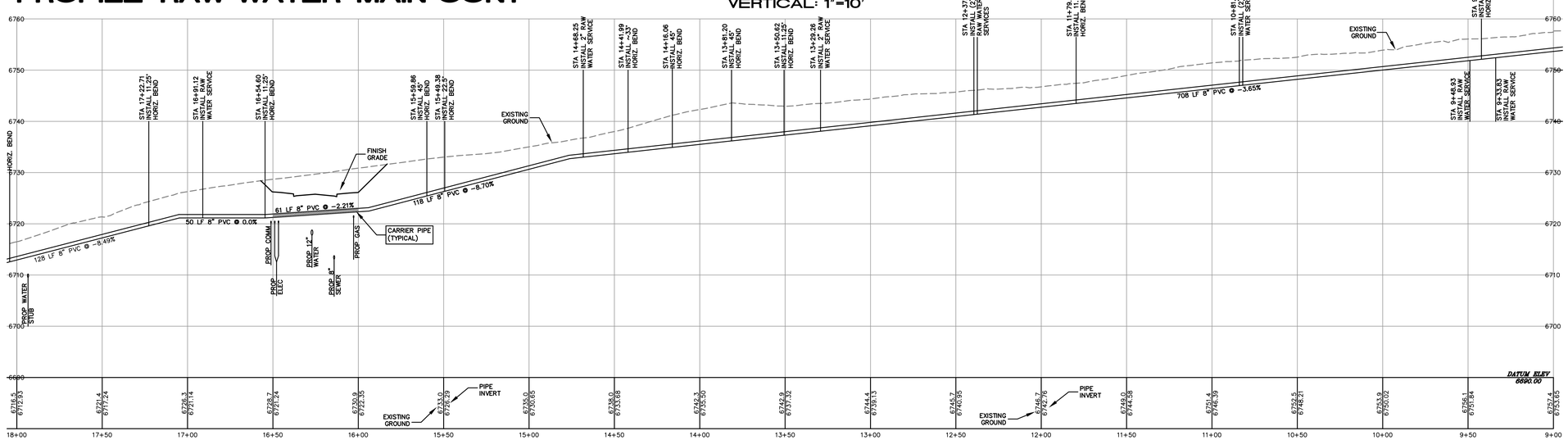
SHEET KEY

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- IR PROPOSED RAW WATER SERVICE
- 6670 PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

PROFILE: RAW WATER-MAIN CONT

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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MATTHEW C. WEIER
11-8-18
39865

HAYMEADOW FILING 1

NON-POTABLE PLAN & PROFILE

NO.	DATE	REVISIONS	BY
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	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C6.02

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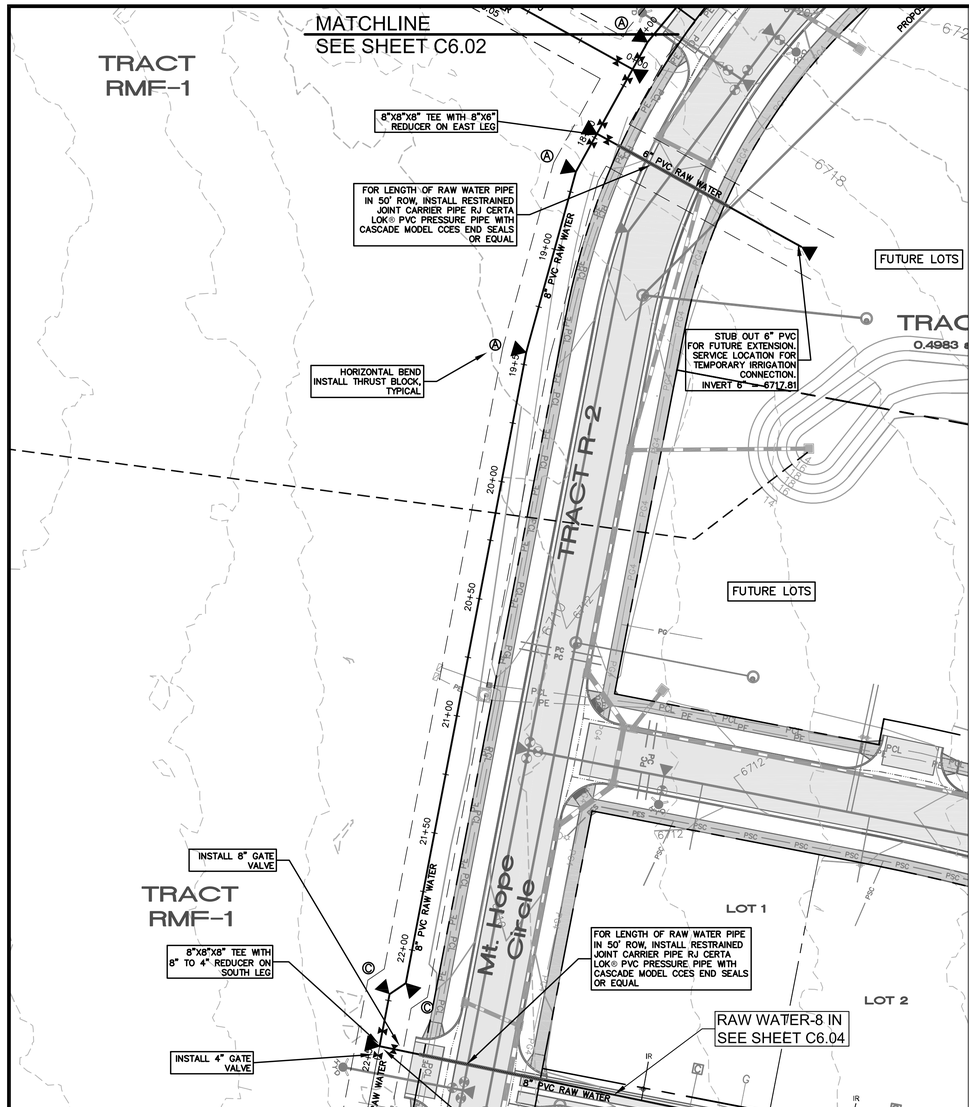


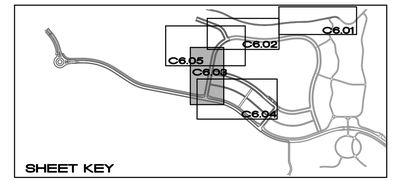
LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- Ⓐ 11.25° BEND
- Ⓑ 22.5° BEND
- Ⓒ 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

GRAPHIC SCALE

0 15 30 60

SCALE: 1"= 30'



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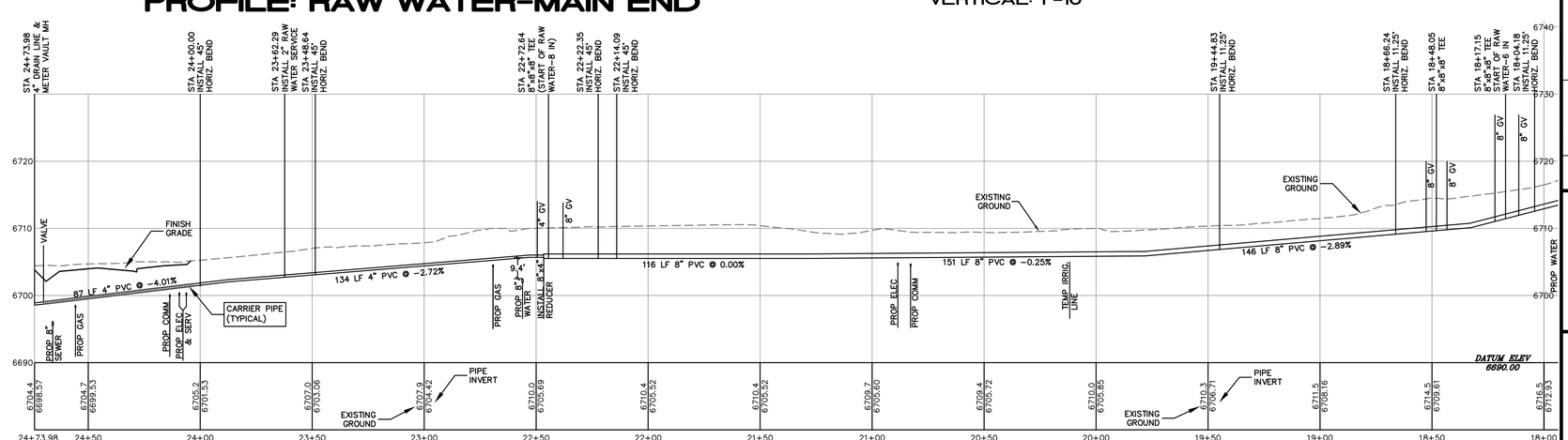
NON-POTABLE WATER SYSTEM TO BE CONSTRUCTED TO TOE PUBLIC WORKS WATER STANDARDS

PROFILE: RAW WATER-MAIN END

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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NON-POTABLE PLAN & PROFILE

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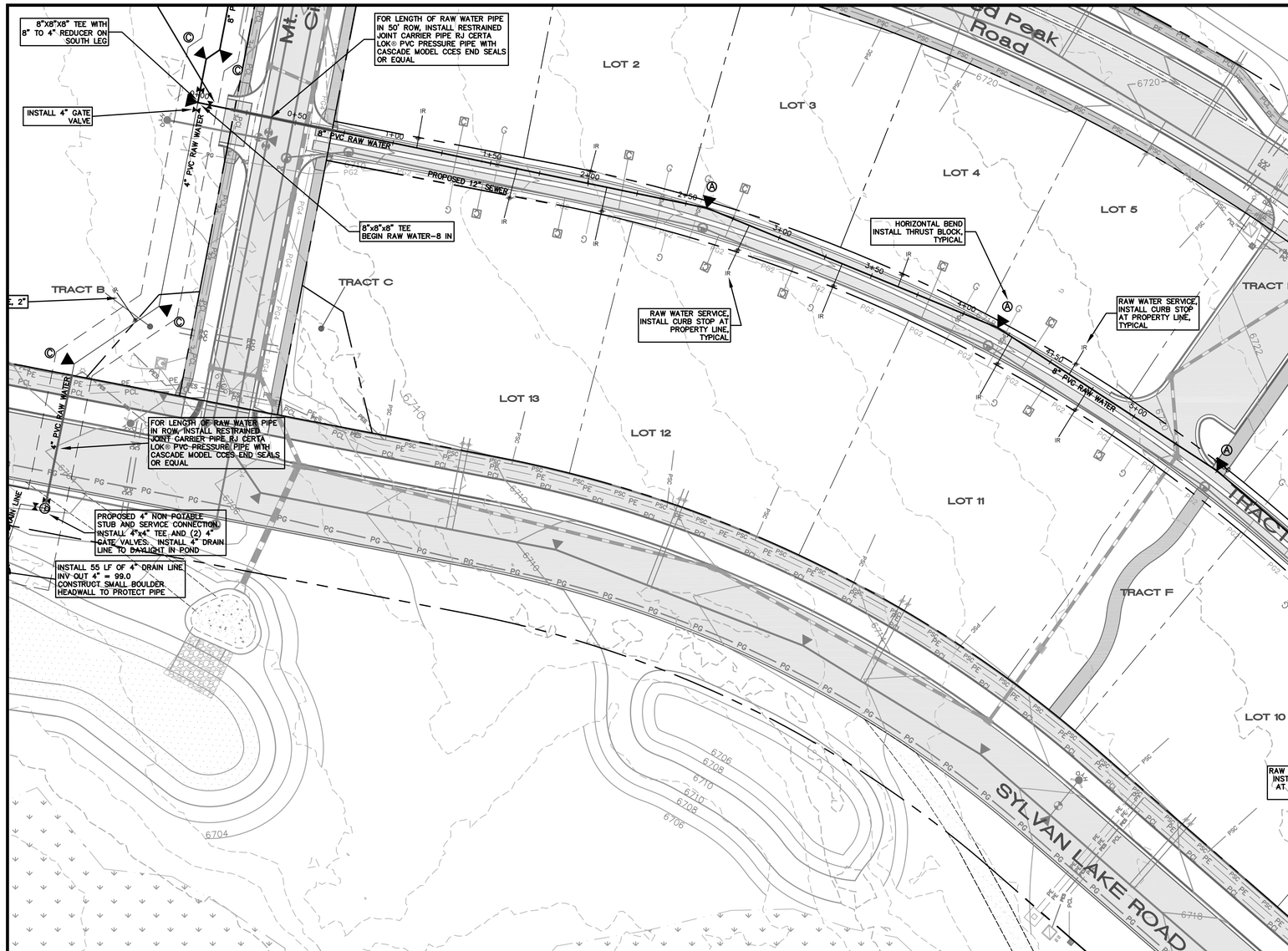

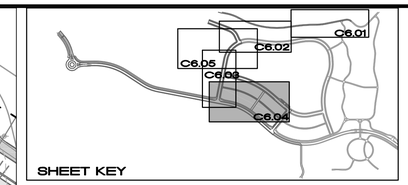

GRAPHIC SCALE

0 15 30 60

SCALE: 1"= 30'

LEGEND

- PROPOSED WATER MAIN W/BEND, THRUST BLOCK
- PROPOSED WATER SERVICE W/ CURB STOP
- PROPOSED FIRE HYDRANT/GV ASSEMBLY
- A 11.25° BEND
- B 22.5° BEND
- C 45° BEND
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM SEWER & INLETS
- PROPOSED RAW WATER, VARIOUS SIZES
- PROPOSED RAW WATER SERVICE
- PROPOSED CONTOUR
- PROPOSED ROADWAY
- PROPOSED EASEMENT
- EXISTING SEWER
- EXISTING WATER
- EXISTING RAW WATER
- EXISTING CONTOUR

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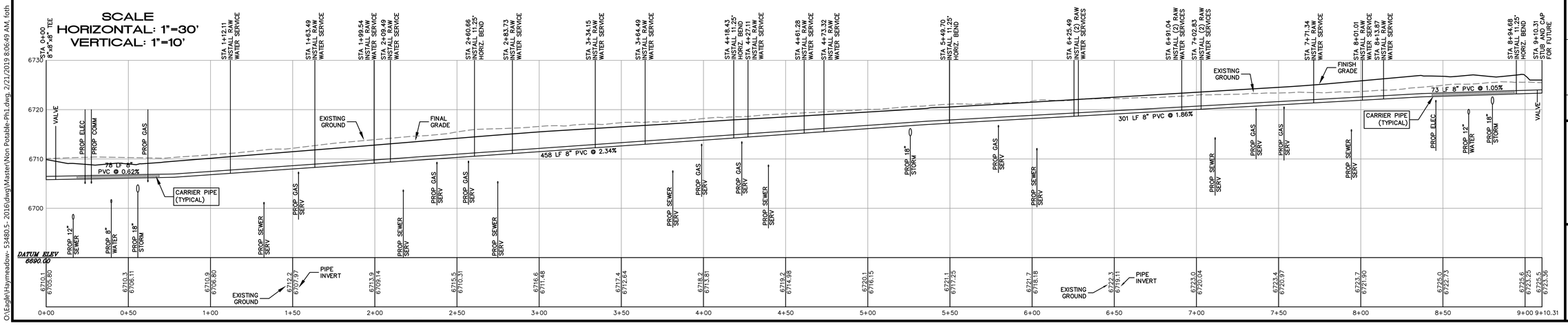
PROFILE: RAW WATER-8 IN

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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NON-POTABLE PLAN & PROFILE

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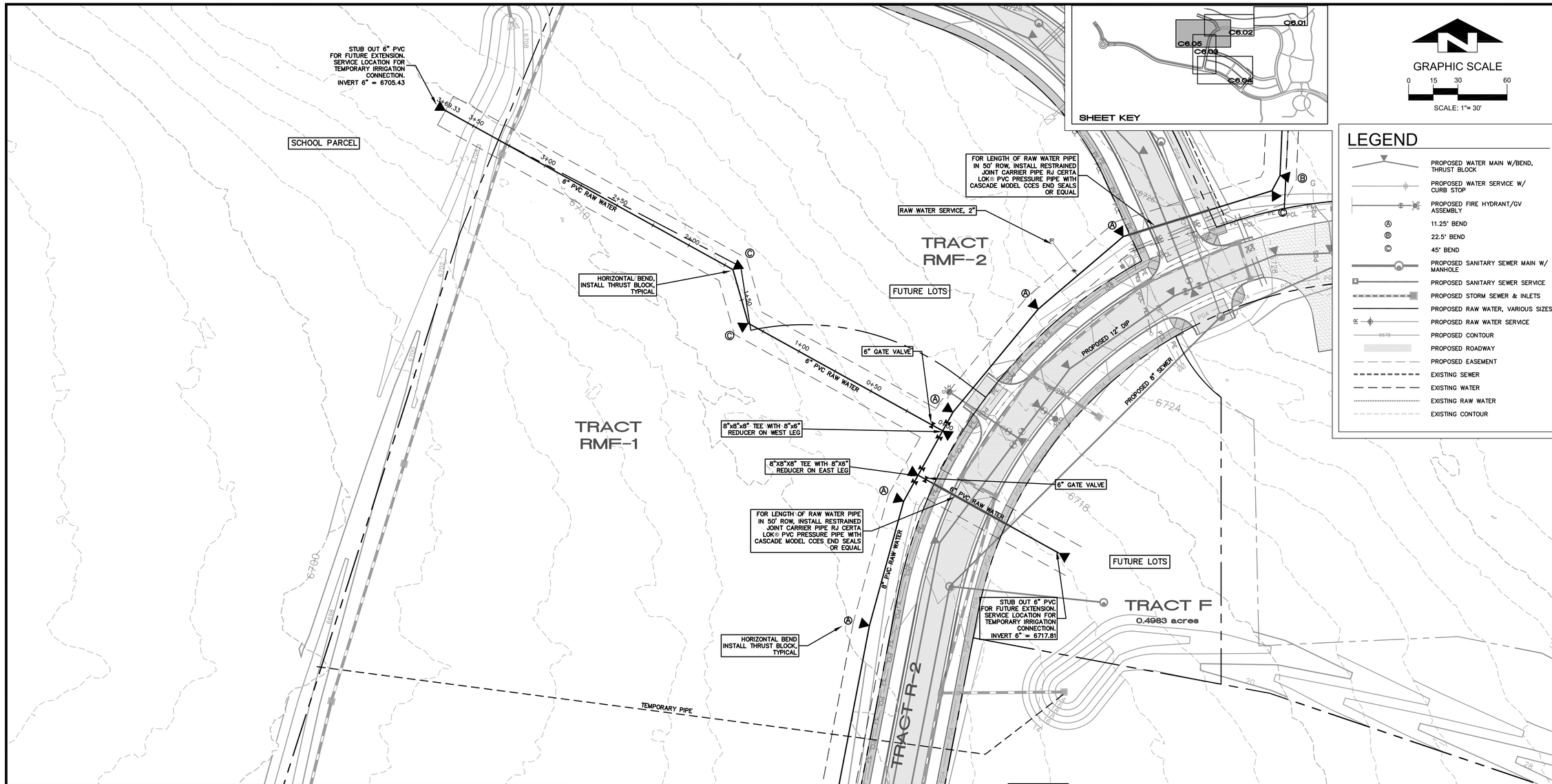
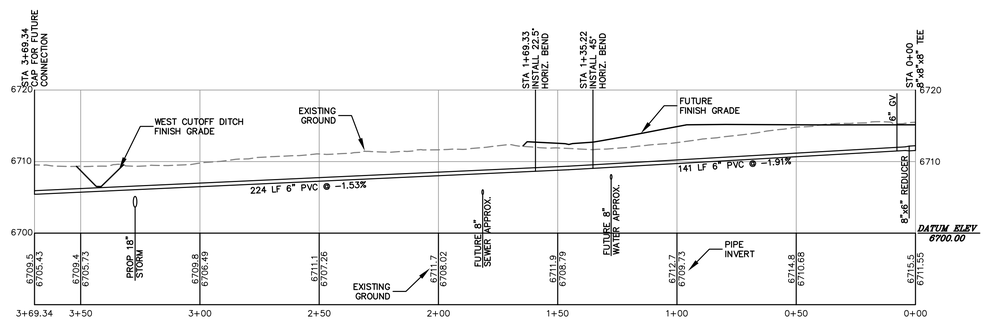
C6.04



PROFILE: RAW WATER-6 IN

SCALE
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



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SHEET C6.05

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LEGEND

PE	PROPOSED PRIMARY ELECTRIC
PCL	PROPOSED CENTURYLINK
PG	PROPOSED GAS MAIN
PG4	PROPOSED GAS MAIN 4"
PG2	PROPOSED GAS MAIN 2"
PSC	PROPOSED JOINT SERVICE TRENCH
PES	PROPOSED ELECTRIC SERVICE
PGS	PROPOSED GAS SERVICE
PC	PROPOSED SPARE CONDUIT
	EXISTING ELECTRICAL VAULT
	EXISTING COMMUNICATIONS VAULT
	PROPOSED ELECTRIC SPLICE VAULT (UM1-35L)
	PROPOSED ELECTRIC TRANSFORMER (UM1-35 - SINGLE PHASE)
	PROPOSED ELECTRIC SWITCHGEAR (UM1-35)
	PROPOSED ELECTRIC JUNCTION BOX
	PROPOSED TELEPHONE PEDESTAL
	PROPOSED STREET LIGHT
	PROPOSED BOLLARD LIGHT

SHALLOW UTILITY EASEMENTS SHOWN, FOR OTHER UTILITY EASEMENTS SEE SPECIFIC SHEETS

CONTRACTOR SHALL INSTALL PULL STRINGS IN ALL MAIN LINE AND SERVICE CONDUITS, SERVICE CONDUITS SHALL BE CAPPED AND MARKED

CONTRACTOR SHALL INSTALL ALL SHALLOW UTILITIES IN ACCORDANCE WITH EACH RESPECTIVE UTILITY COMPANY SPECIFICATIONS

CONTRACTOR SHALL INSTALL SHALLOW UTILITIES BELOW STORM SEWER AND NON-POTABLE PIPE WHERE REQUIRED TO MAINTAIN MINIMUM COVER

SEE ELECTRICAL AND LIGHTING PLANS FOR ADDITIONAL INFORMATION AND DETAILS

SCALE: 1" = 40'

SYLVAN LAKE ROAD (EXISTING)
BRUSH CREEK ROAD
SOLEIL CIRCLE
SYLVAN LAKE ROAD
TRACT OS-1
TRACT OS-2
TRACT E
TRACT R-1
TRACT RMF-1
TRACT A
TRACT B
Mt. Hope Circle
PARCEL A (TOWN OF EAGLE)
TRACT C SOLEIL HOMES FILING 1
TRACT B SOLEIL HOMES FILING 1
EXISTING 8" PVC SEWER
PROPOSED 12" PVC SEWER MAIN
PROPOSED 8" STEEL GAS MAIN
MATCHLINE
SG1

IRRIGATION INSTALL (2) 4" PVC CONDUIT (SLEEVES) AT 30" DEPTH TYPICAL

EXISTING JOINT TRENCH
-SINGLE PHASE PRIMARY ELECTRIC
-PHONE\CATV
-GAS MAIN

INSTALL ELECTRIC SERVICE BETWEEN TAPCO RAPID FLASHING BEACONS

INSTALL ELECTRIC SERVICE TO PROPOSED STREETLIGHTS

EXIST. UM-30R ELECTRIC SPLICE VAULT

CONNECT TO EXISTING COMMUNICATION VAULT AND EXTEND (1) 4" CONDUIT IN JOINT TRENCH WITH PRIMARY ELECTRIC. INSTALL (1) 4" SPARE CONDOUT IN JOINT TRENCH

CONNECT TO EXISTING ELECTRIC SPLICE VAULT AND EXTEND (2) 6" PRIMARY ELECTRIC CONDUIT IN JOINT TRENCH

BLACK HILLS ENERGY TO CONNECT TO EXISTING 8" STEEL GAS STUB AND EXTEND 8" STEEL GAS MAIN IN SYLVAN LAKE ROAD RIGHT OF WAY TO LIMITS SHOWN

REMOVE AND REPLACE EXISTING LIGHT POST PRIOR TO INSTALLATION OF PROPOSED GAS MAIN

INSTALL (2) 4" SPARE CONDUITS BOTH SIDES OF SPLITTER ISLAND SWEEP UP, CAP, AND INSTALL PULL STRINGS (TYP)

SWEEP CONDUIT BELOW STORM PIPE WITH 12" MIN. CLEARANCE

GAS MAIN TO CROSS ABOVE SEWER

INSTALL ELECTRIC SERVICE BETWEEN TAPCO RAPID FLASHING BEACONS

INSTALL ELECTRIC SERVICE TO EACH PROPOSED STREETLIGHT

INSTALL UM1-35L ELECTRIC SPLICE VAULT RIM = 6674.5

INSTALL CENTURLINK 3'X4' HANDHOLE FOR FUTURE PEDESTAL

SWEEP GAS MAIN UNDER PROPOSED CULVERT

PROPOSED BOLLARD LIGHT (RE: LIGHTING PLAN) COORDINATE WITH SOLEIL HOMES FOR LOCATION

PROPOSED PRIMARY JOINT TRENCH
(3) 6" ELECTRIC
(1) 4" CENTURYLINK
(1) 4" SPARE CONDUIT

EXTEND (2) ELECTRIC SERVICES CONDUIT TO PROPOSED BOLLARD LIGHTS\ROUNDABOUT STREETLIGHTS

PROPOSED PRIMARY JOINT TRENCH
(3) 6" ELECTRIC 500 MCM FEEDER
(2) 2" SINGLE PHASE ELECTRIC SERVICE, (1) FOR TOWN OF EAGLE ROUNDABOUT LIGHTS, (1) FOR METRO DISTRICT BOLLARD LIGHTS
(1) 4" COMMUNICATION
(1) 4" SPARE CONDUIT

INSTALL 3 PHASE ELECTRIC STUB
(2) 6" CONDUIT.
INSTALL SINGLE PHASE ELECTRIC STUB
(2) 4" CONDUIT
INSTALL CENTURYLINK STUB
(1) 4" CONDUIT
INSTALL ONE SPARE STUB
(1) 4" CONDUIT

EXTEND (1) ELECTRIC SERVICE CONDUIT TO PROPOSED BOLLARD LIGHTS\ROUNDABOUT STREETLIGHTS

SWEEP CONDUIT UNDER PROP. STORM PIPE

INSTALL SWITCHGEAR (UM1-35) AND SINGLE PHASE TRANSFORMER (UM1-35), (2) ELECTRIC JUNCTION BOXES WITH METER AND DISCONNECT FOR STREETLIGHTS RIM = 6686.0

INSTALL CENTURYLINK 3'X4' HANDHOLE FOR FUTURE PEDESTAL

INSTALL (2) 4" SPARE CONDUITS SWEEP UP, CAP, AND INSTALL PULL STRINGS (TYP)

INSTALL UM-30R ELECTRIC SPLICE VAULT RIM = 6712.0

INSTALL (1) 4" ELEC. CONDUIT AND (1) 4" CENTURYLINK CONDUIT SWEEP UP, CAP & INSTALL PULL STRINGS IN HANDHOLE

INSTALL ELECTRIC SERVICE TO PROPOSED STREETLIGHT

PROPOSED 2" PE GAS STUB FOR FUTURE EXTENSION

INSTALL JOINT TRENCH
(1) 4" PRIMARY SINGLE PHASE ELECTRIC
(1) 4" CENTURYLINK
(1) 4" SPARE CONDUIT

INSTALL UM-30R ELECTRIC SPLICE VAULT RIM = 6706.5

INSTALL ELECTRIC SERVICE CONDUIT TO TRACT B

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HAYMEADOW FILING 1

SHALLOW UTILITY PLAN

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DESIGNED MW, RL
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CHECKED MCW
JOB NO. 53480.5
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SHEET C7.01

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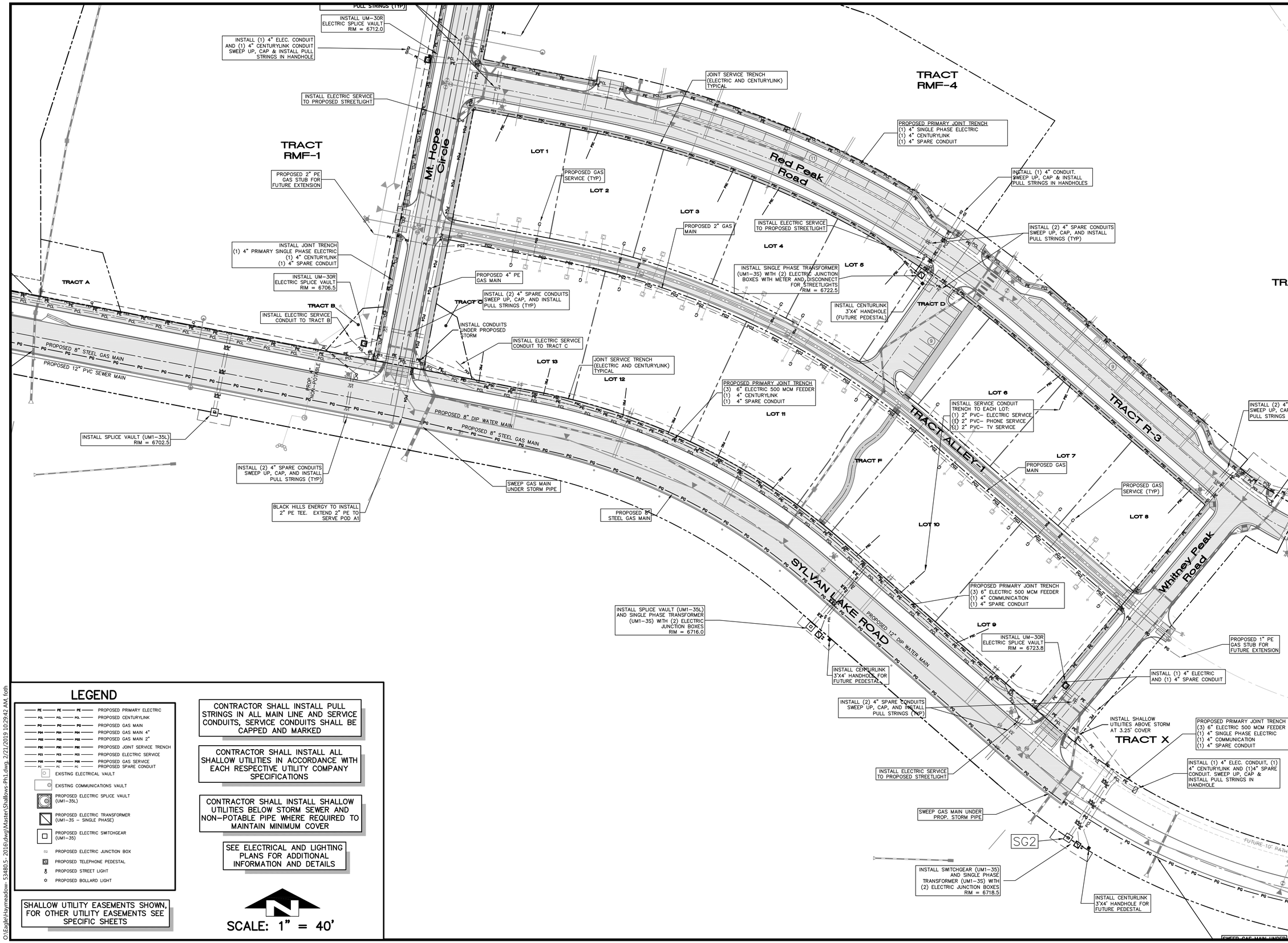

LEGEND

- PROPOSED PRIMARY ELECTRIC
- PROPOSED CENTURYLINK
- PROPOSED GAS MAIN
- PROPOSED GAS MAIN 4"
- PROPOSED GAS MAIN 2"
- PROPOSED JOINT SERVICE TRENCH
- PROPOSED ELECTRIC SERVICE
- PROPOSED GAS SERVICE
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- EXISTING ELECTRICAL VAULT
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- PROPOSED ELECTRIC SPLICE VAULT (UM1-35L)
- PROPOSED ELECTRIC TRANSFORMER (UM1-3S - SINGLE PHASE)
- PROPOSED ELECTRIC SWITCHGEAR (UM1-3S)
- PROPOSED ELECTRIC JUNCTION BOX
- PROPOSED TELEPHONE PEDESTAL
- PROPOSED STREET LIGHT
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SEE ELECTRICAL AND LIGHTING PLANS FOR ADDITIONAL INFORMATION AND DETAILS

N

SCALE: 1" = 40'

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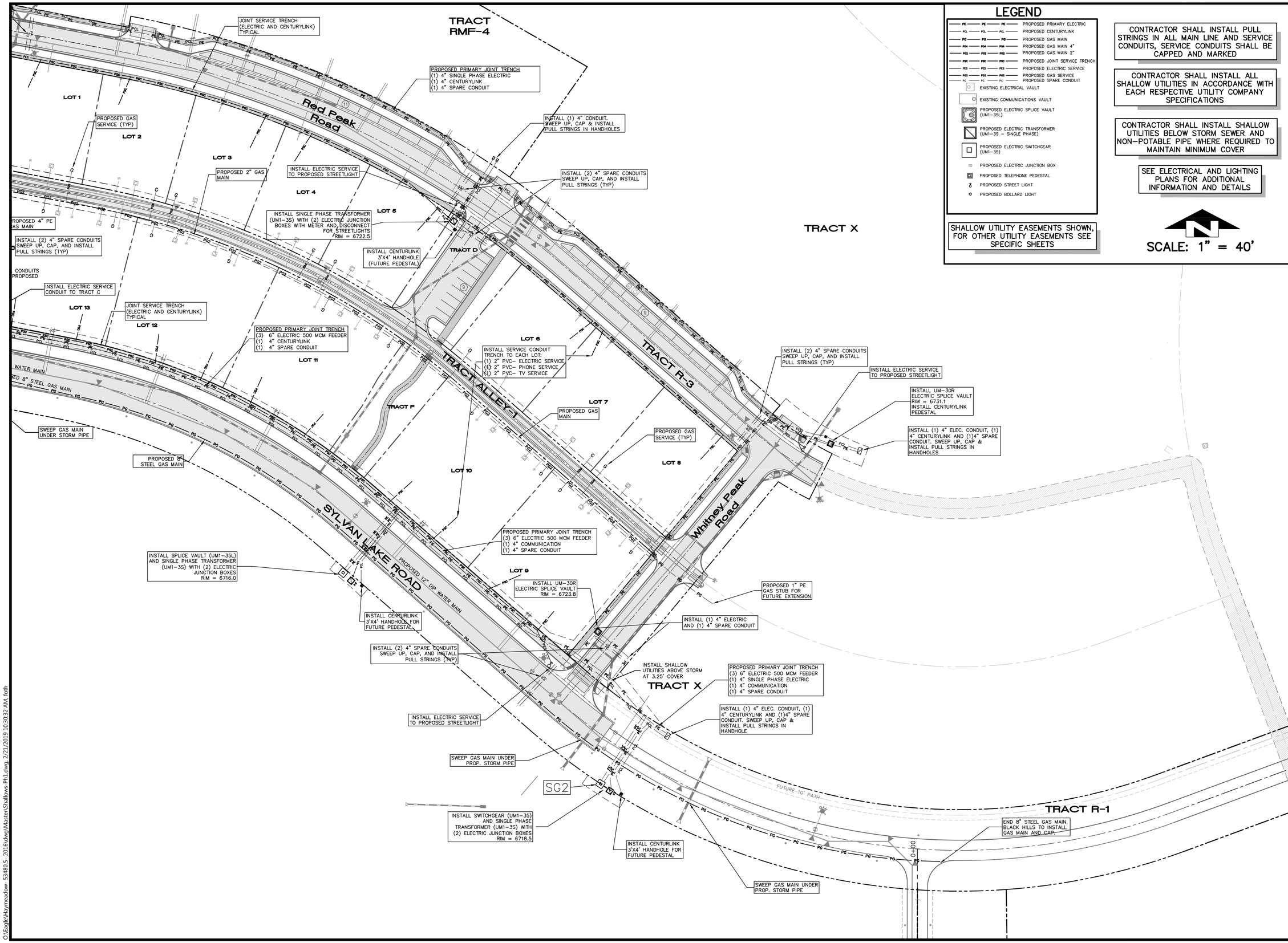

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PCL	PROPOSED CENTURYLINK
PG	PROPOSED GAS MAIN
PG4	PROPOSED GAS MAIN 4"
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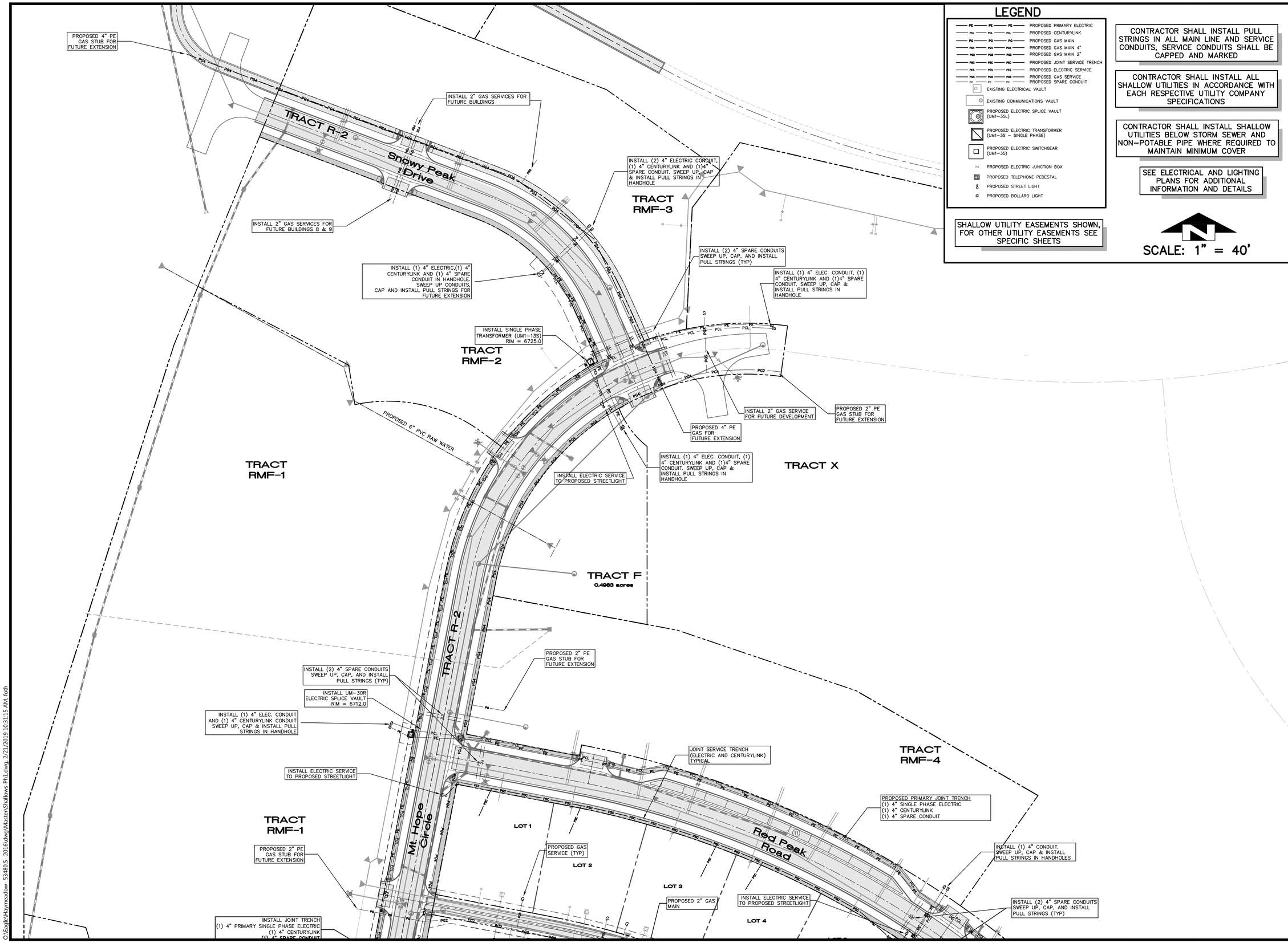

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- PROPOSED GAS MAIN
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SHALLOW UTILITY PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C7.04

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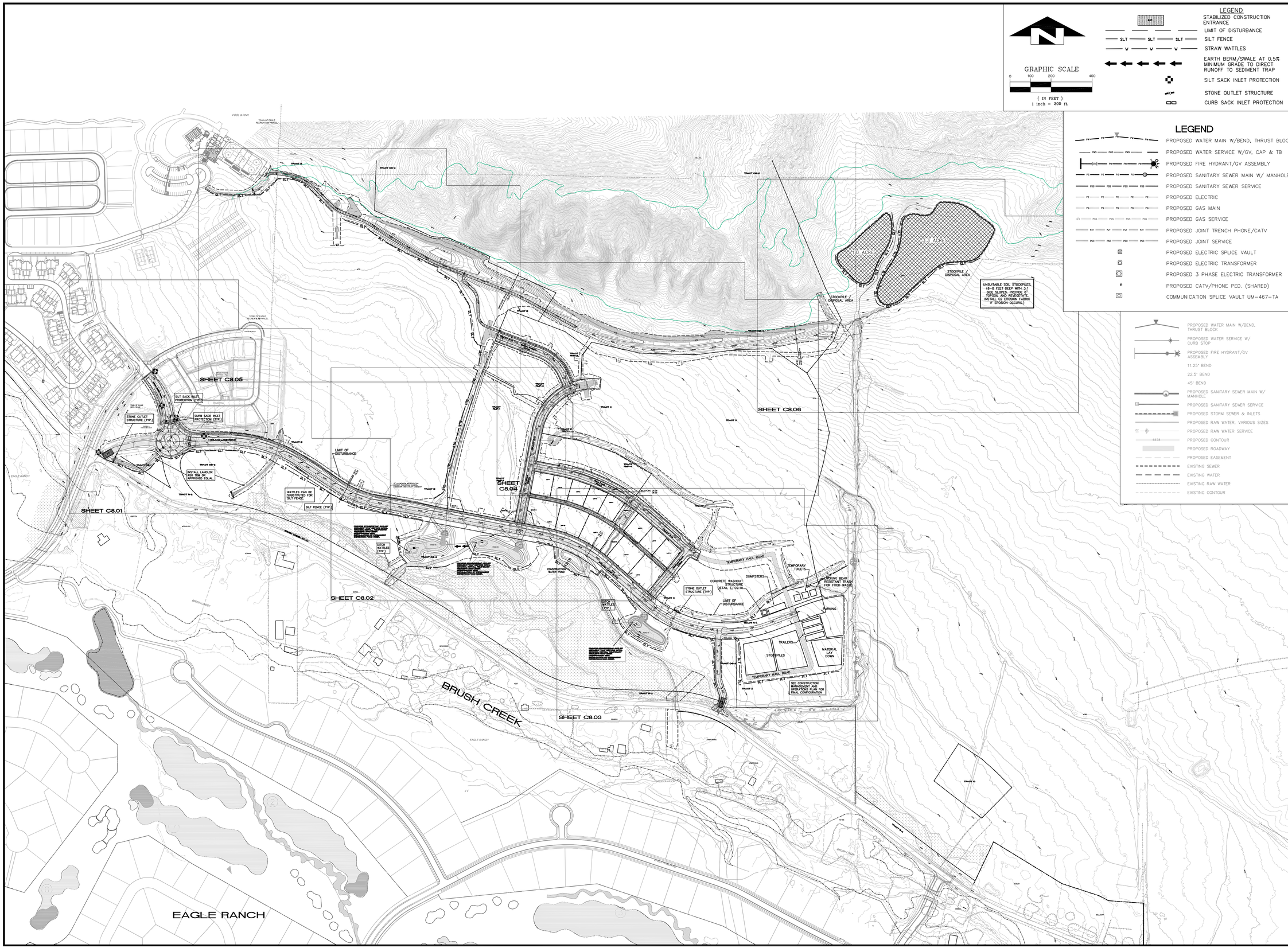

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COLORADO LICENSED
MATTHEW C. WEIER
11-8-18
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

SEDIMENT CONTROL PLAN

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED M.W., RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C8.00

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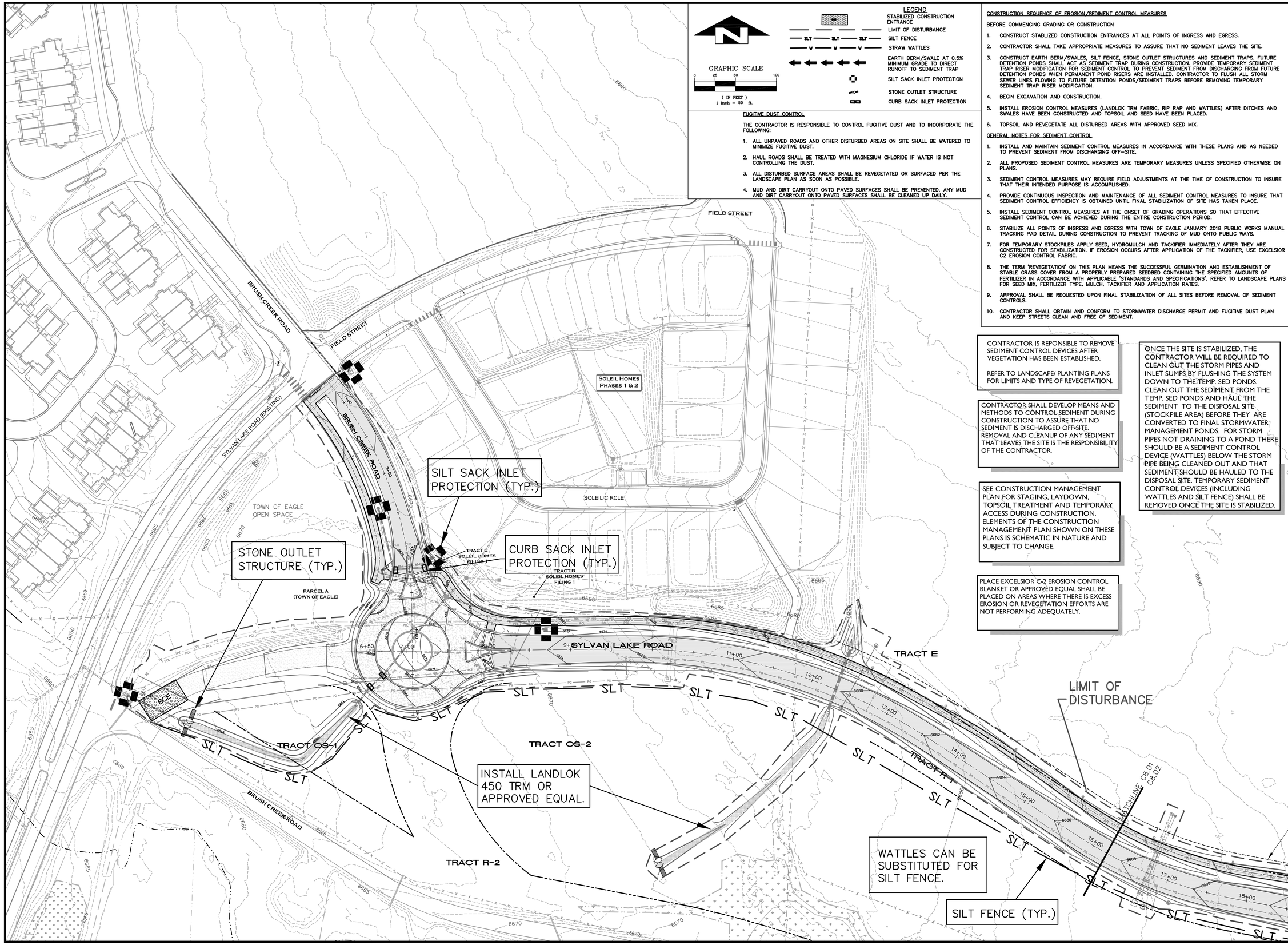

LEGEND

- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SILT FENCE
- STRAW WATTLES
- EARTH BERM/SWALE AT 0.5% MINIMUM GRADE TO DIRECT RUNOFF TO SEDIMENT TRAP
- SILT SACK INLET PROTECTION
- STONE OUTLET STRUCTURE
- CURB SACK INLET PROTECTION

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

FUGITIVE DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE TO CONTROL FUGITIVE DUST AND TO INCORPORATE THE FOLLOWING:

1. ALL UNPAVED ROADS AND OTHER DISTURBED AREAS ON SITE SHALL BE WATERED TO MINIMIZE FUGITIVE DUST.
2. HAUL ROADS SHALL BE TREATED WITH MAGNESIUM CHLORIDE IF WATER IS NOT CONTROLLING THE DUST.
3. ALL DISTURBED SURFACE AREAS SHALL BE REVEGETATED OR SURFACED PER THE LANDSCAPE PLAN AS SOON AS POSSIBLE.
4. MUD AND DIRT CARRYOUT ONTO PAVED SURFACES SHALL BE PREVENTED. ANY MUD AND DIRT CARRYOUT ONTO PAVED SURFACES SHALL BE CLEANED UP DAILY.

CONSTRUCTION SEQUENCE OF EROSION/SEDIMENT CONTROL MEASURES

BEFORE COMMENCING GRADING OR CONSTRUCTION

1. CONSTRUCT STABLIZED CONSTRUCTION ENTRANCES AT ALL POINTS OF INGRESS AND EGRESS.
2. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ASSURE THAT NO SEDIMENT LEAVES THE SITE.
3. CONSTRUCT EARTH BERM/SWALES, SILT FENCE, STONE OUTLET STRUCTURES AND SEDIMENT TRAPS. FUTURE DETENTION PONDS SHALL ACT AS SEDIMENT TRAP DURING CONSTRUCTION. PROVIDE TEMPORARY SEDIMENT TRAP RISER MODIFICATION FOR SEDIMENT CONTROL TO PREVENT SEDIMENT FROM DISCHARGING FROM FUTURE DETENTION PONDS WHEN PERMANENT POND RISERS ARE INSTALLED. CONTRACTOR TO FLUSH ALL STORM SEWER LINES FLOWING TO FUTURE DETENTION PONDS/SEDIMENT TRAPS BEFORE REMOVING TEMPORARY SEDIMENT TRAP RISER MODIFICATION.
4. BEGIN EXCAVATION AND CONSTRUCTION.
5. INSTALL EROSION CONTROL MEASURES (LANDLOK TRM FABRIC, RIP RAP AND WATTLES) AFTER DITCHES AND SWALES HAVE BEEN CONSTRUCTED AND TOPSOIL AND SEED HAVE BEEN PLACED.
6. TOPSOIL AND REVEGETATE ALL DISTURBED AREAS WITH APPROVED SEED MIX.

GENERAL NOTES FOR SEDIMENT CONTROL

1. INSTALL AND MAINTAIN SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THESE PLANS AND AS NEEDED TO PREVENT SEDIMENT FROM DISCHARGING OFF-SITE.
2. ALL PROPOSED SEDIMENT CONTROL MEASURES ARE TEMPORARY MEASURES UNLESS SPECIFIED OTHERWISE ON PLANS.
3. SEDIMENT CONTROL MEASURES MAY REQUIRE FIELD ADJUSTMENTS AT THE TIME OF CONSTRUCTION TO INSURE THAT THEIR INTENDED PURPOSE IS ACCOMPLISHED.
4. PROVIDE CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES TO INSURE THAT SEDIMENT CONTROL EFFICIENCY IS OBTAINED UNTIL FINAL STABILIZATION OF SITE HAS TAKEN PLACE.
5. INSTALL SEDIMENT CONTROL MEASURES AT THE ONSET OF GRADING OPERATIONS SO THAT EFFECTIVE SEDIMENT CONTROL CAN BE ACHIEVED DURING THE ENTIRE CONSTRUCTION PERIOD.
6. STABILIZE ALL POINTS OF INGRESS AND EGRESS WITH TOWN OF EAGLE JANUARY 2018 PUBLIC WORKS MANUAL TRACKING PAD DETAIL DURING CONSTRUCTION TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS.
7. FOR TEMPORARY STOCKPILES APPLY SEED, HYDROMULCH AND TACKIFIER IMMEDIATELY AFTER THEY ARE CONSTRUCTED FOR STABILIZATION. IF EROSION OCCURS AFTER APPLICATION OF THE TACKIFIER, USE EXCELSIOR C2 EROSION CONTROL FABRIC.
8. THE TERM 'REVEGETATION' ON THIS PLAN MEANS THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED CONTAINING THE SPECIFIED AMOUNTS OF FERTILIZER IN ACCORDANCE WITH APPLICABLE 'STANDARDS AND SPECIFICATIONS'. REFER TO LANDSCAPE PLANS FOR SEED MIX, FERTILIZER TYPE, MULCH, TACKIFIER AND APPLICATION RATES.
9. APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES BEFORE REMOVAL OF SEDIMENT CONTROLS.
10. CONTRACTOR SHALL OBTAIN AND CONFORM TO STORMWATER DISCHARGE PERMIT AND FUGITIVE DUST PLAN AND KEEP STREETS CLEAN AND FREE OF SEDIMENT.

CONTRACTOR IS REPONSIBLE TO REMOVE SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS BEEN ESTABLISHED.

REFER TO LANDSCAPE/ PLANTING PLANS FOR LIMITS AND TYPE OF REVEGETATION.

CONTRACTOR SHALL DEVELOP MEANS AND METHODS TO CONTROL SEDIMENT DURING CONSTRUCTION TO ASSURE THAT NO SEDIMENT IS DISCHARGED OFF-SITE. REMOVAL AND CLEANUP OF ANY SEDIMENT THAT LEAVES THE SITE IS THE RESPONSIBILITY OF THE CONTRACTOR.

SEE CONSTRUCTION MANAGEMENT PLAN FOR STAGING, LAYDOWN, TOPSOIL TREATMENT AND TEMPORARY ACCESS DURING CONSTRUCTION. ELEMENTS OF THE CONSTRUCTION MANAGEMENT PLAN SHOWN ON THESE PLANS IS SCHEMATIC IN NATURE AND SUBJECT TO CHANGE.

PLACE EXCELSIOR C-2 EROSION CONTROL BLANKET OR APPROVED EQUAL SHALL BE PLACED ON AREAS WHERE THERE IS EXCESS EROSION OR REVEGETATION EFFORTS ARE NOT PERFORMING ADEQUATELY.

ONCE THE SITE IS STABILIZED, THE CONTRACTOR WILL BE REQUIRED TO CLEAN OUT THE STORM PIPES AND INLET SUMPS BY FLUSHING THE SYSTEM DOWN TO THE TEMP. SED PONDS. CLEAN OUT THE SEDIMENT FROM THE TEMP. SED PONDS AND HAUL THE SEDIMENT TO THE DISPOSAL SITE (STOCKPILE AREA) BEFORE THEY ARE CONVERTED TO FINAL STORMWATER MANAGEMENT PONDS. FOR STORM PIPES NOT DRAINING TO A POND THERE SHOULD BE A SEDIMENT CONTROL DEVICE (WATTLES) BELOW THE STORM PIPE BEING CLEANED OUT AND THAT SEDIMENT SHOULD BE HAULED TO THE DISPOSAL SITE. TEMPORARY SEDIMENT CONTROL DEVICES (INCLUDING WATTLES AND SILT FENCE) SHALL BE REMOVED ONCE THE SITE IS STABILIZED.

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MATTHEW C. WEIGLE
7-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

SEDIMENT CONTROL PLAN

NO.	DATE	REVISIONS	BY
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	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

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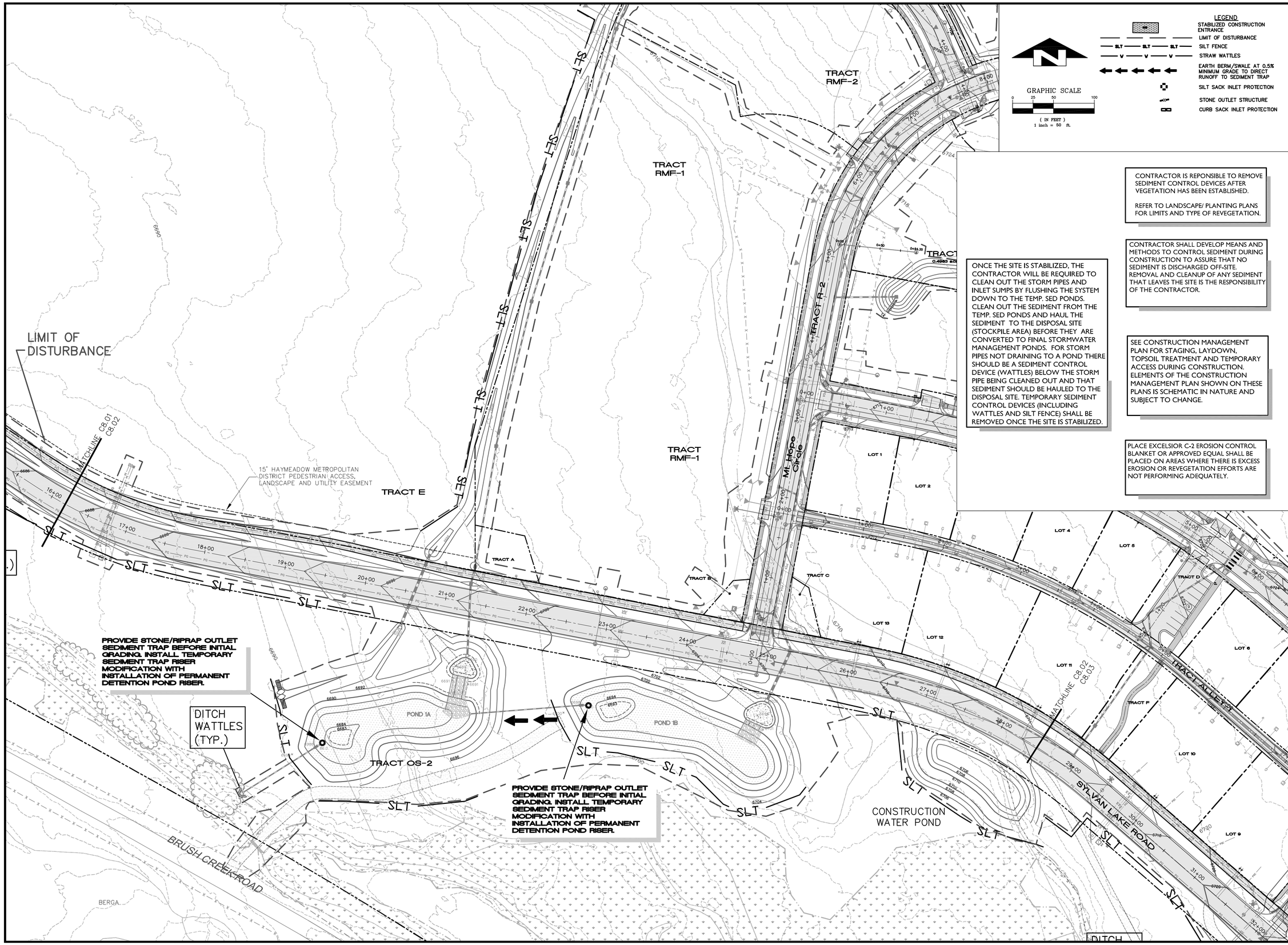

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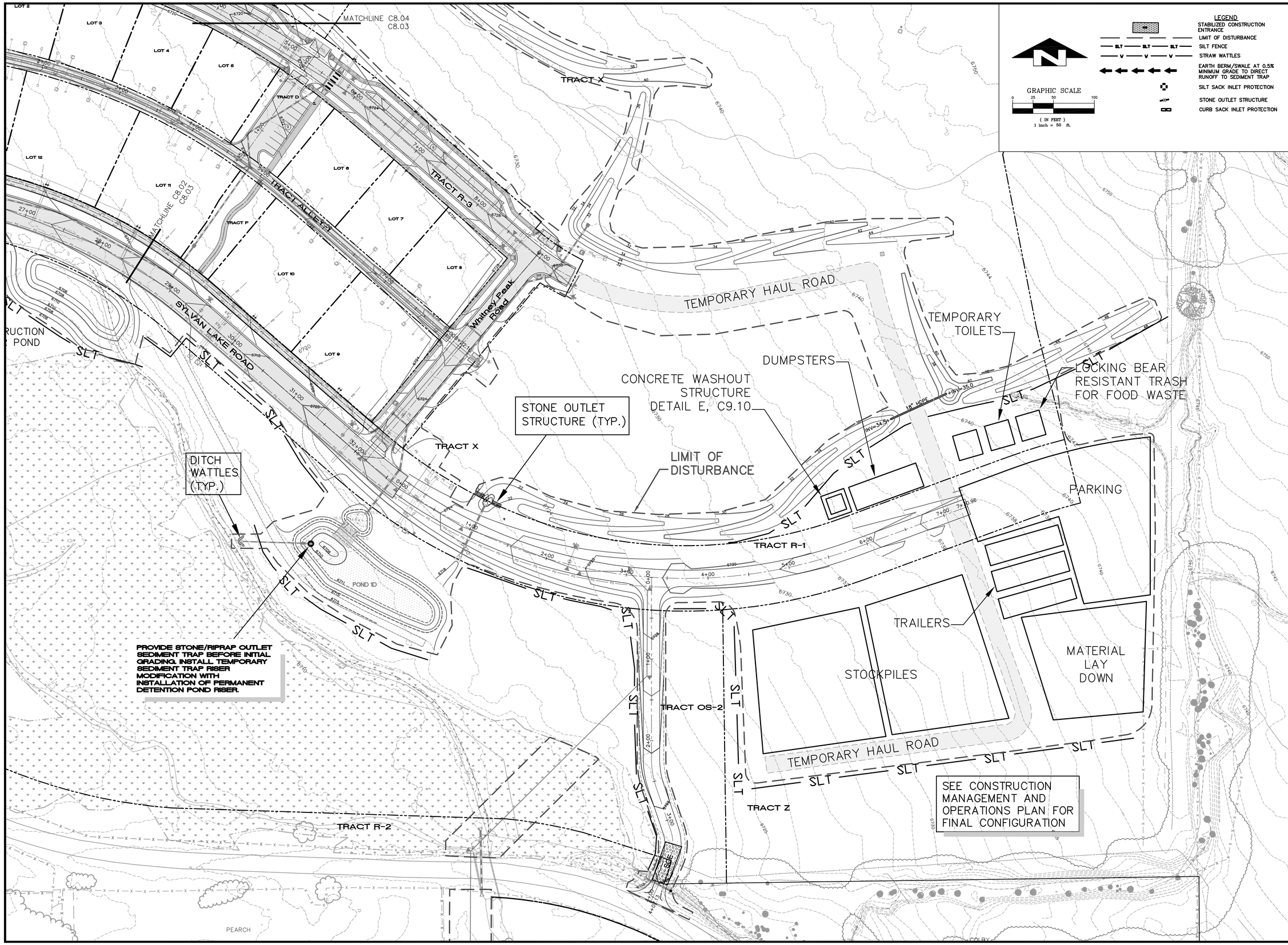

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COLORADO LICENSED
MATTHEW C. WEIGEL
11-8-18
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PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

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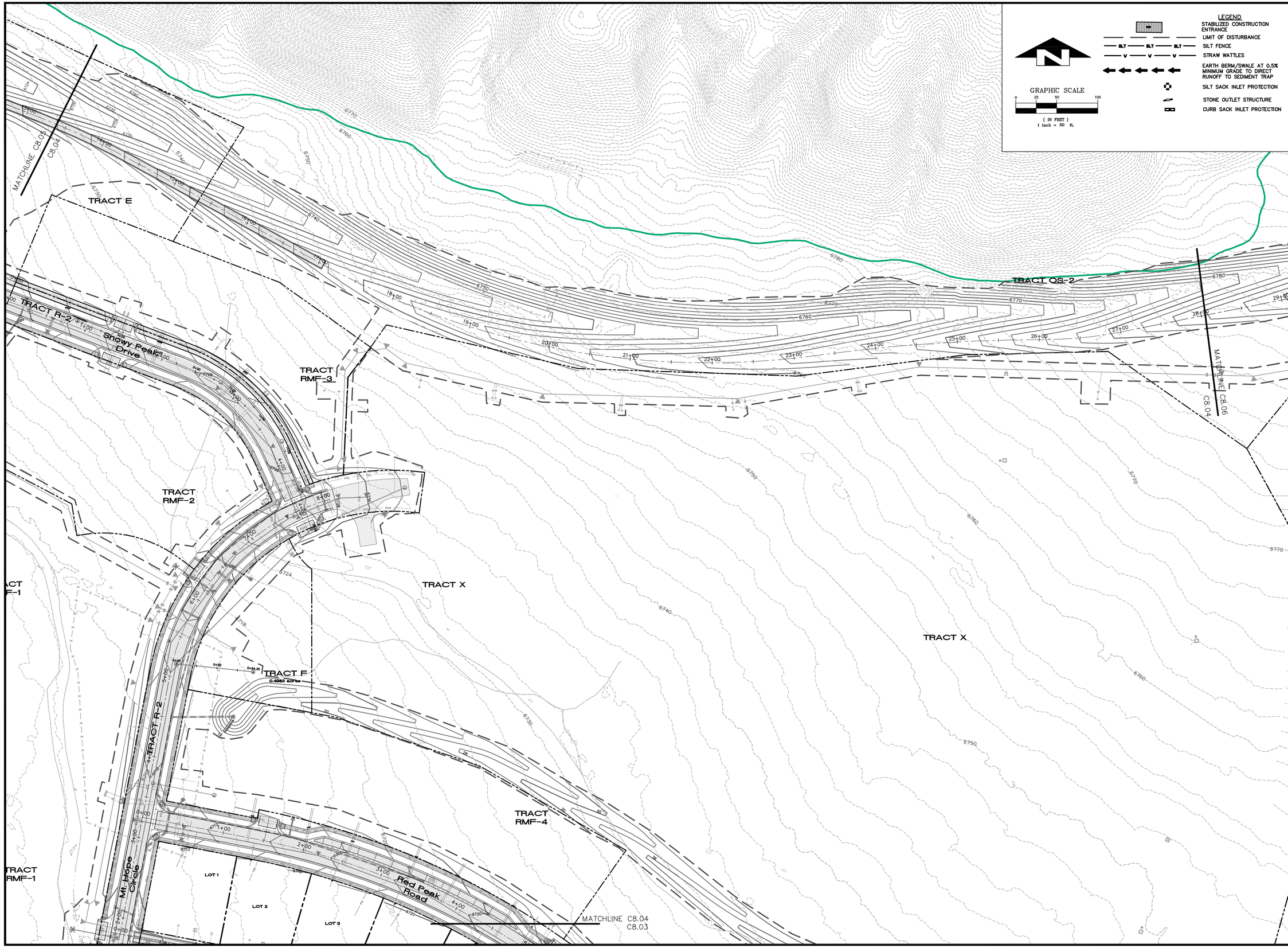

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CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

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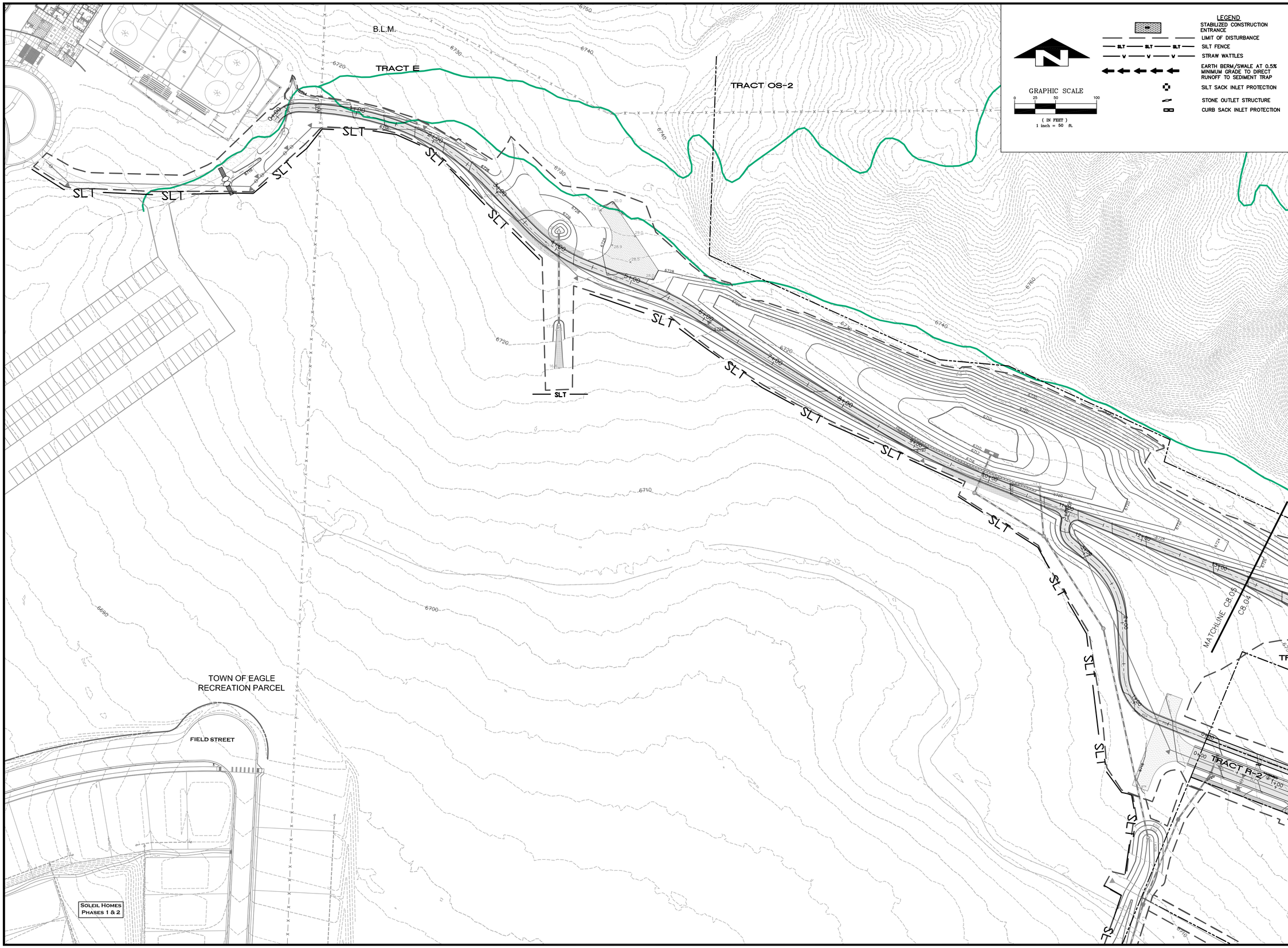

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DATE	02/20/2019

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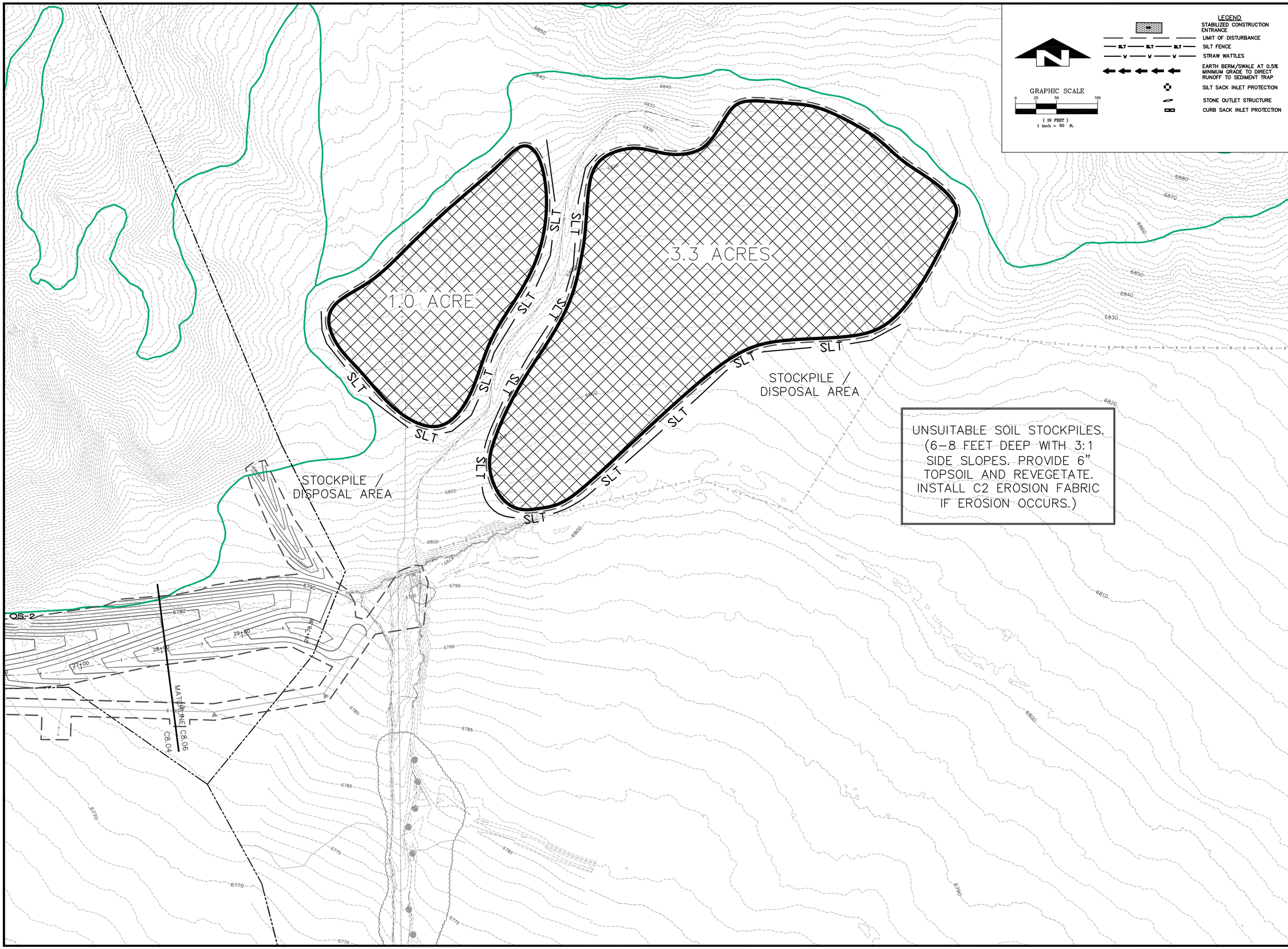

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DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C8.06

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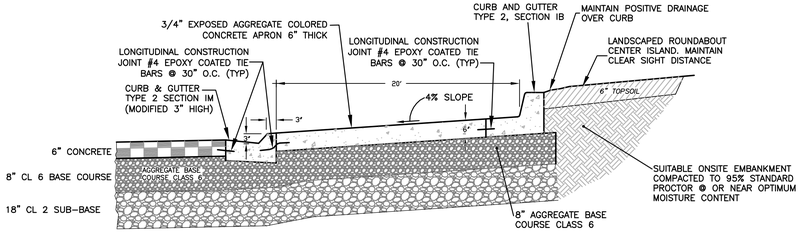
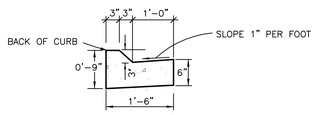
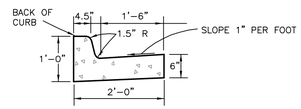


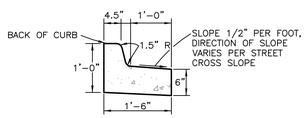
CONCRETE APRON ON ROUNDABOUT N.T.S.



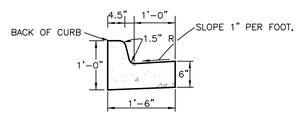
MEDIAN CURB & GUTTER (CATCH) TYPE II SECTION IM N.T.S.



VERTICAL CURB & GUTTER TYPE II SECTION IIB N.T.S.

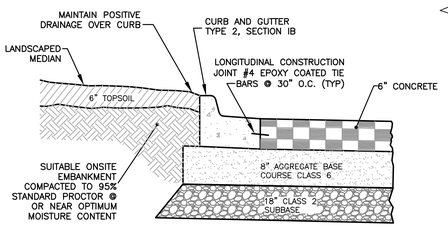


MEDIAN CURB & GUTTER (SPILL) TYPE II SECTION IB N.T.S.

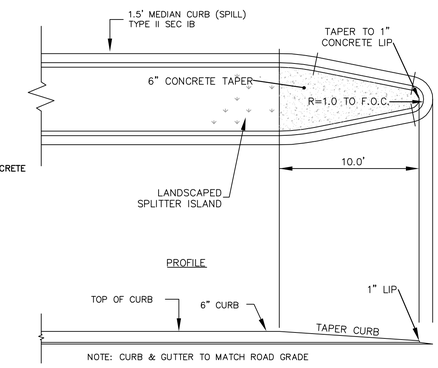


MEDIAN CURB & GUTTER (CATCH) TYPE II SECTION IB N.T.S.

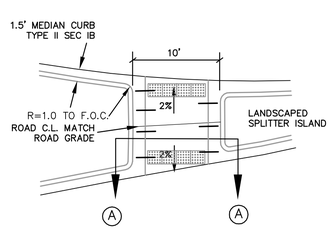
USE CDOT CLASS P CONCRETE FOR ALL AREAS WITHIN ROUNDABOUT

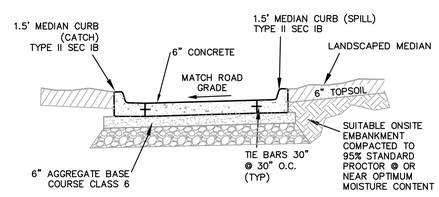


TYPICAL SPLITTER ISLAND SECTION N.T.S.



SPLITTER ISLAND NOSE TAPER N.T.S.

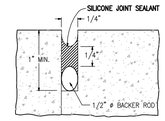




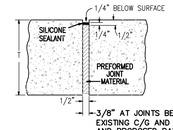
SECTION A–A

TYPICAL SPLITTER ISLAND PEDESTRIAN CUT DETAIL N.T.S.

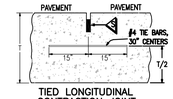
A ROUNDABOUT DETAILS



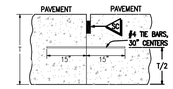
SEAL AT CONSTRUCTION JOINT



EXPANSION JOINT

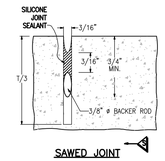


TIED LONGITUDINAL CONTRACTION JOINT



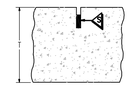
LONGITUDINAL CONSTRUCTION JOINT

NOTE: LONGITUDINAL AND TRANSVERSE TIE–BARS ARE NOT USED IN THE 8" PAVEMENT SECTION. SEE NOTE BELOW IN 8" PAVEMENT DETAIL RE: CUTTING EVERY OTHER REINFORCING BAR.



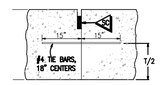
SAWED JOINT

JOINT SEAL DETAILS



TRANSVERSE CONTRACTION JOINT (TRANSVERSE WEAKENED PLANE JOINT)

JOINT DETAILS



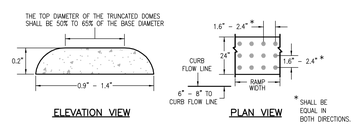
TRANSVERSE CONSTRUCTION JOINT

REINFORCED JOINT DETAILS

N.T.S.

B JOINT DETAILS

NOTE: INSTALL RADIAL DETECTABLE WARNING PADS, DURALAST 25' RADIAL PLATES @ 24" WIDE AND 5' OR 10' LONG WHERE SHOWN ON PLANS

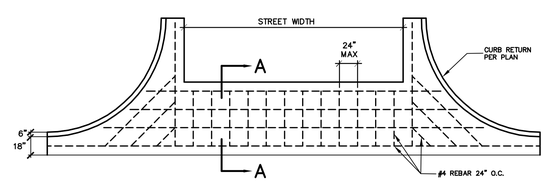


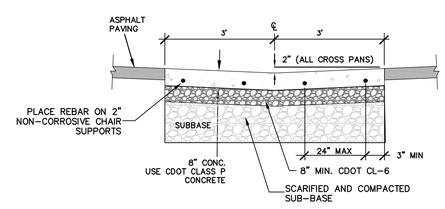
ELEVATION VIEW PLAN VIEW

DOME AND DETECTABLE WARNING DETAILS N.T.S.

N.T.S.

C TRUNCATED DOME DETAIL





SECTION A–A

NOTES:

1. STEEL REINFORCEMENT IS #4 GRADE 40 REBAR PLACED A MAXIMUM OF 24" O.C.
2. REBAR SPLICES MUST MAINTAIN A 12" MINIMUM OVERLAP.
3. BASE SHALL BE EITHER 3/4" CRUSHED SCREENED ROCK OR ABC CL–6 COMPACTED TO 95% OF MAXIMUM MODIFIED PROCTOR DENSITY WITHIN 2% OF OPTIMUM MOISTURE AS DEFINED BY ASTM 1557 METHOD "C".
4. SUB–BASE MUST BE SCARIFIED AND RECOMPACTED AND PASS A PROOF ROLLING BY A FULLY LOADED TANDEM AXLE DUMP TRUCK. PROOF ROLLING MUST BE WITNESSED AND DOCUMENTED BY ENGINEERING DEPARTMENT STAFF.
5. CONCRETE MUST CONFORM TO CDOT CLASS P (MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 4500 PSI). 80% OF COMPRESSIVE STRENGTH MUST BE ACHIEVED IN THE FIRST 7 DAYS.

D CONCRETE CROSS PAN DETAIL

SIGNAGE AND SIGN POSTS SHALL CONFORM TO TOWN OF EAGLE PUBLIC WORKS MANUAL SECTION 3.03. & 2009 MUTCD WITH REVISIONS 1 AND 2, MAY 2012.

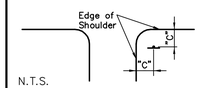
GROUND SIGN PLACEMENT & HEIGHT PER CDOT STANDARD S–614–1.

General Notes:

1. THE ENGINEER SHALL ESTABLISH GRADES AND LOCATIONS FOR ALL SIGNS POST IN ACCORDANCE WITH DETAILS SHOWN ON PLANS.
2. SPECIAL CARE SHALL BE TAKEN IN SIGN LOCATION TO ENSURE AN UNOBSTRUCTED VIEW OF EACH SIGN
3. MINIMUM LATERAL PLACEMENT IS MEASURED FROM FACE OF CURB OR FROM ANY SURFACE PREPARED FOR NORMAL OR EMERGENCY TRAVEL OF VEHICLES.
4. NORMAL LATERAL PLACEMENT IS MEASURED FROM THE EDGE OF THE TRAVEL LANE.
5. IN URBAN AREAS A LATERAL CLEARANCE OF 1' FROM THE CURB FACE IS PERMISSIBLE WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING POLES ARE CLOSE TO THE CURB.
6. A MINIMUM POST LENGTH SHALL BE MAINTAINED FROM BOTTOM OF SIGN PANEL TO THE GROUND OR THE TOP OF FOOTING.
7. "EDUCATIONAL PLAQUES" FOR SYMBOL SIGNS WILL NOT BE CONSIDERED WHEN DETERMINING VERTICAL PLACEMENT.
8. WHEN LATERAL PLACEMENT IS 30' OR MORE FOR SIGNS WITHOUT A SUPPLEMENTAL PANEL, VERTICAL PLACEMENT "D" MAY BE REDUCED TO 5'. WHEN LATERAL PLACEMENT IS 30' OR MORE FOR SIGNS WITH A SUPPLEMENTAL PANEL, VERTICAL PLACEMENT "F" DOES NOT APPLY – USE ONLY VERTICAL PLACEMENT "H".
9. NORMAL ANGULAR PLACEMENT IS 0°. SIGNS CLOSER THAN 30' SHOULD BE TURNED SLIGHTLY AWAY TO MINIMIZE SPECULAR REFLECTION. SIGNS PLACED 30' OR MORE SHOULD BE GENERALLY BE TURNED TOWARD THE ROAD.
10. THE EXIT PANEL IS MOUNTED ON THE RIGHT HAND SIDE FOR RIGHT HAND EXITS AND THE LEFT SIDE FOR LEFT HAND EXITS.

	LATERAL PLACEMENT	
KEY	ALL CLASSES OF STREETS AND HIGHWAYS	
	MINIMUM	NORMAL
A	2'–0" & Note No. 4	12'–0" PLUS CURB
B	2'–0" & Note No. 4	30'–0" OR MORE INCLUDES CURB
C	2'–0" & Note No. 4	6'–0" PLUS EDGE OF 6'+ WIDE SHOULDER. IF NONE, 15' FROM EGDE OF TRAVEL LANE

MINOR CROSSROAD



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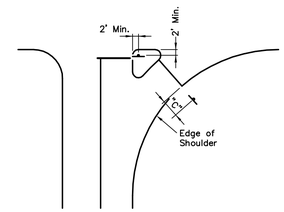
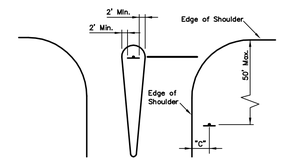
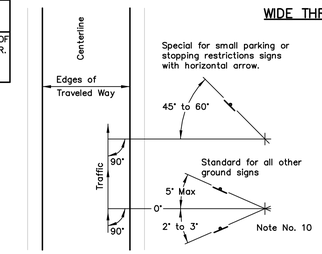


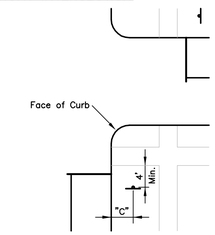
CHANNELIZED INTERSECTION



WIDE THROAT INTERSECTION

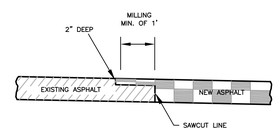


ANGULAR PLACEMENT



URBAN INTERSECTION

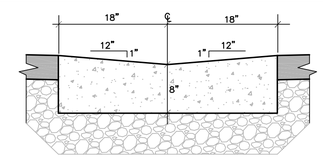
E SIGN LOCATION DETAILS



SHEER STEP (MILLING) N.T.S.

N.T.S.

F SHEER STEP



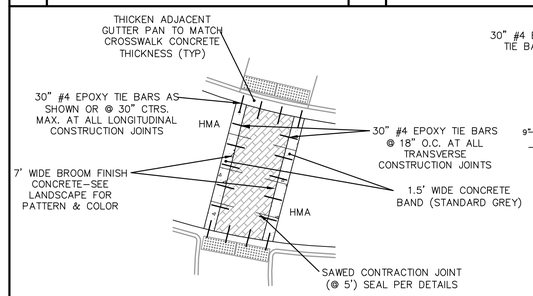
CONCRETE 'V' PAN SECTION

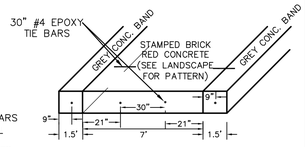
PROVIDE CONTRACTION JOINTS EVERY 10' (MAX)

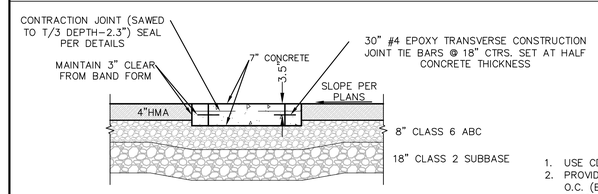
GENERAL NOTES

1. USE CDOT CLASS P CONCRETE
2. PLACE AND COMPACT 8" (MINIMUM) CLASS 6 ROAD BASE BEDDING
3. PLACE AND COMPACT 10" CLASS 2 SUBBASE WHEN IN PUBLIC ROAD ROW.

G 3 FT CONCRETE PAN DETAIL







SECTION

1. USE CDOT CLASS P CONCRETE
2. PROVIDE CONTRACTION JOINTS EVERY 5' O.C. (BANDS & SLAB JOINTS SHALL MATCH)

H CONCRETE CROSSWALK DETAIL

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EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. LEE 11-8-18 39865

HAYMEADOW FILING 1

ROAD & GRADING DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C9.01

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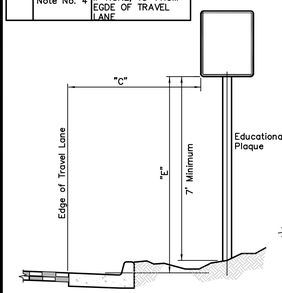
LATERAL PLACEMENT			
KEY	ALL CLASSES OF STREETS AND HIGHWAYS		
	MINIMUM	NORMAL	
A	2'–0" & Note No. 4	12'–0" PLUS CURB	
B	2'–0" & Note No. 4	30'–0" OR MORE INCLUDES CURB	
C	2'–0" & Note No. 4	6'–0" PLUS EDGE OF 6'+ WIDE SHOULDER. IF NONE, 15' FROM EGDE OF TRAVEL LANE	

VERTICAL PLACEMENT (MINIMUM)			
KEY	CONVENTIONAL STREETS AND HIGHWAYS		
	URBAN	RURAL	MAXIMUM
D	7'–0"	5'–0"	8–0"
E	7'–0"	5'–0"	8'–0"
F	7'–0"	5'–0"	9'–0"
G	6'–0"	4'–0"	7'–0"
H	6'–0"	4'–0"	7'–0"

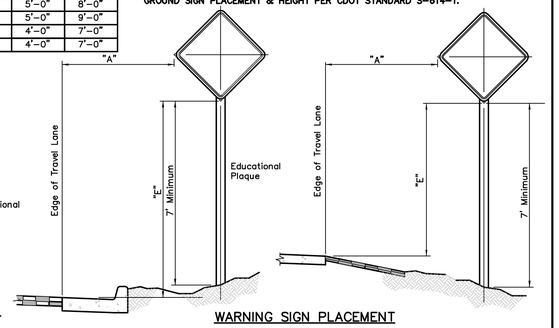
SEE GENERAL NOTES FOR SIGN LOCATION DETAILS.

SIGNAGE AND SIGN POSTS SHALL CONFORM TO TOWN OF EAGLE PUBLIC WORKS MANUAL SECTION 3.03. & 2009 MUTCD WITH REVISIONS 1 AND 2, MAY 2012.

GROUND SIGN PLACEMENT & HEIGHT PER CDOT STANDARD S–614–1.

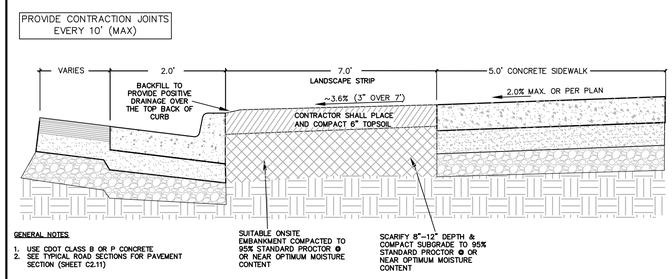


N.T.S. REGULATORY SIGN PLACEMENT



WARNING SIGN PLACEMENT

A SIGN PLACEMENT

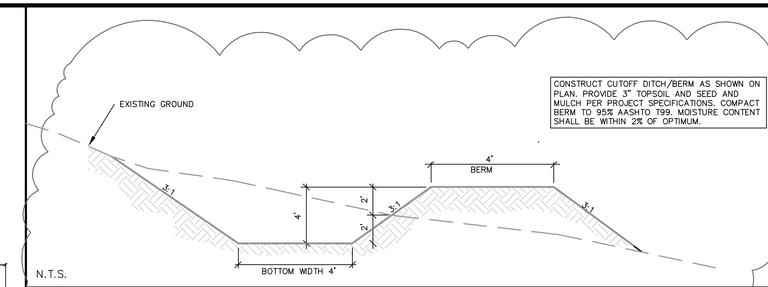


GENERAL NOTES
1. USE CDOT CLASS B OR P CONCRETE.
2. SEE TYPICAL ROAD SECTIONS FOR PAVEMENT SECTION (SHEET C2.11)

2' CURB AND GUTTER DETAIL WITH DETACHED SIDEWALK

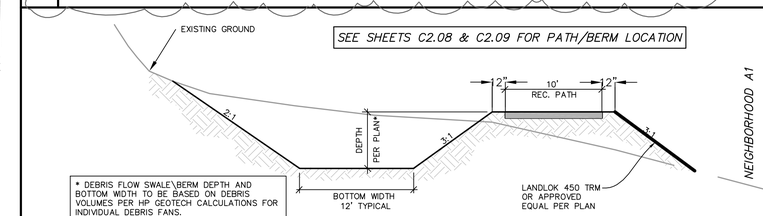
N.T.S.

B TYPICAL SIDEWALK SECTION



N.T.S.

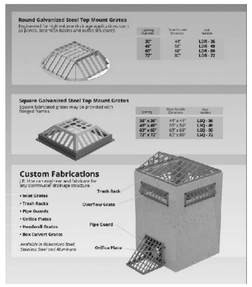
H TEMPORARY IRRIGATION FLOW CUTOFF DITCH / BERM



* DEBRIS FLOW SWALE\BERM DEPTH AND BOTTOM WIDTH TO BE BASED ON DEBRIS VOLUMES PER HP GEOTECH CALCULATIONS FOR INDIVIDUAL DEBRIS FANS.

N.T.S.

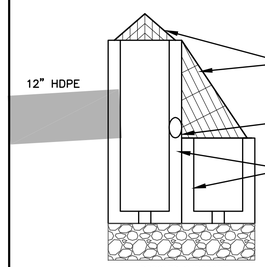
C POOL PATH\DEBRIS FLOW MITIGATION BERM



PROVIDE REMOVABLE GALVANIZED STEEL TRASH RACK AND PIPE GUARD (NO OVERFLOW GRATE) FOR RISERS IN PONDS 1A,1B and 1D.

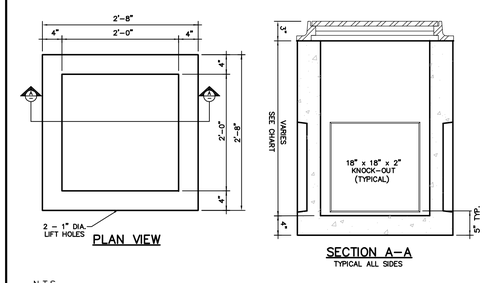
N.T.S.

E TRASH RACK



SEE PLAN FOR POND ORIFICE SIZES AND ELEVATIONS.
SEE DETAIL BELOW FOR DEBRIS SWALE OUTLET STRUCTURE PIPE SIZE.
PROVIDE 2" WEEP HOLE IN BOTTOM OF BOTH AREA INLET SUMPS.

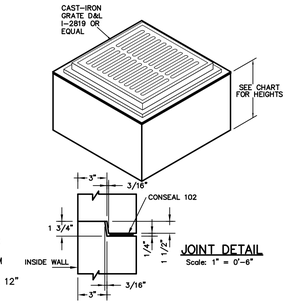
F POND 1A, 1B, 1D RISER

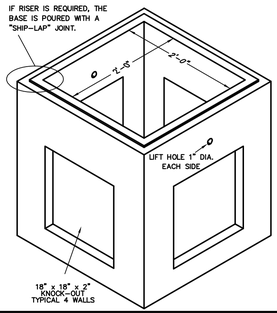


RISER NUMBER	HT.	WT.
NO. 0200702	0'–2"	77
NO. 0200704	0'–4"	154
NO. 0200706	0'–6"	233
NO. 0200710	1'–0"	467
NO. 0200720	1'–6"	700
NO. 0200730	2'–0"	933
NO. 0200740	2'–6"	1,167
NO. 0200750	3'–0"	1,400
NO. 0200760	4'–0"	1,867

BASE NUMBER	HT.	WT.
NO. 0200530	2'–0"	1,283
NO. 0200540	2'–6"	1,512
NO. 0200550	3'–0"	1,750
NO. 0200560	4'–0"	2,217

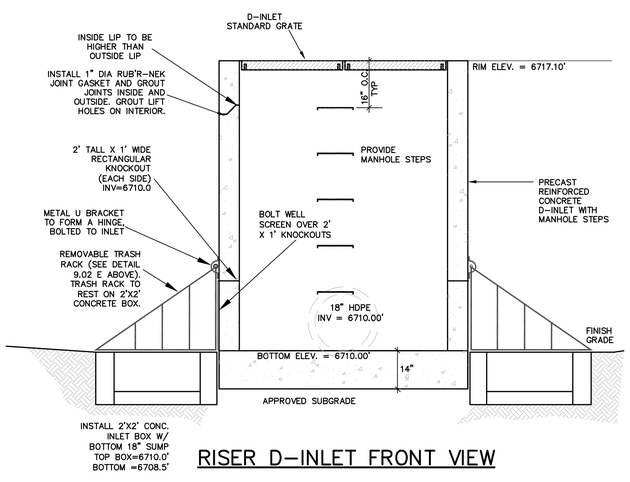
NOTES:
1. DESIGNED FOR AASHTO HS–20 LOADING.
2. DESIGNED ACCORDING TO ASTM C857–87 AND ASTM C858–83.
3. ALL INLET BOXES SHALL HAVE 12" SUMP BELOW OUTLET (TYPICAL)





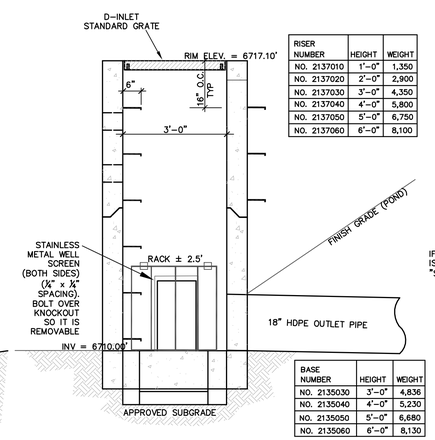
N.T.S.

G 2'x2' INLET



RISER D–INLET FRONT VIEW

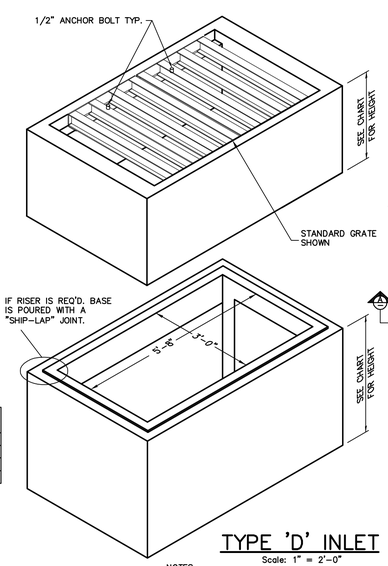
PROVIDE 14" THICK BASE ON D–INLET TO PREVENT FLOATATION



RISER D–INLET SIDE VIEW

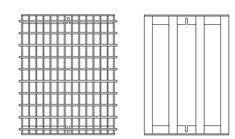
RISER NUMBER	HEIGHT	WEIGHT
NO. 2137010	1'–0"	1,350
NO. 2137020	2'–0"	2,900
NO. 2137030	3'–0"	4,350
NO. 2137040	4'–0"	5,800
NO. 2137050	5'–0"	6,750
NO. 2137060	6'–0"	8,100

BASE NUMBER	HEIGHT	WEIGHT
NO. 2135030	3'–0"	4,836
NO. 2135040	4'–0"	5,230
NO. 2135050	5'–0"	6,680
NO. 2135060	6'–0"	8,130



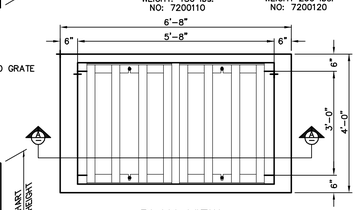
TYPE 'D' INLET
Scale: 1" = 2'–0"

NOTES:
1. DESIGNED FOR AASHTO HS–20 LOADING.
2. DESIGNED ACCORDING TO ASTM C857–87 AND ASTM C858–83.

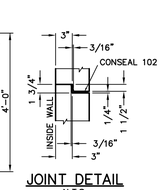


CLOSEMESH GRATE WEIGHT: 130 lbs. NO: 7200110

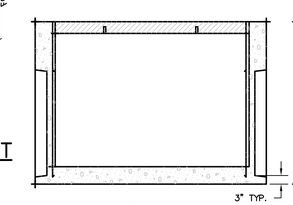
"STANDARD" HIGHWAY GRATE WEIGHT 260 lbs. NO: 7200120



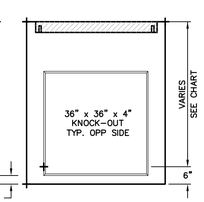
PLAN VIEW



JOINT DETAIL
N.T.S.



SECTION A–A



END VIEW

N.T.S.

D DEBRIS SWALE OUTLET STRUCTURE

ALPINE ENGINEERING INC.
345 10 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED
MATTHEW C. WEIGEL
11-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

ROAD, GRADING, STORM DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C9.02

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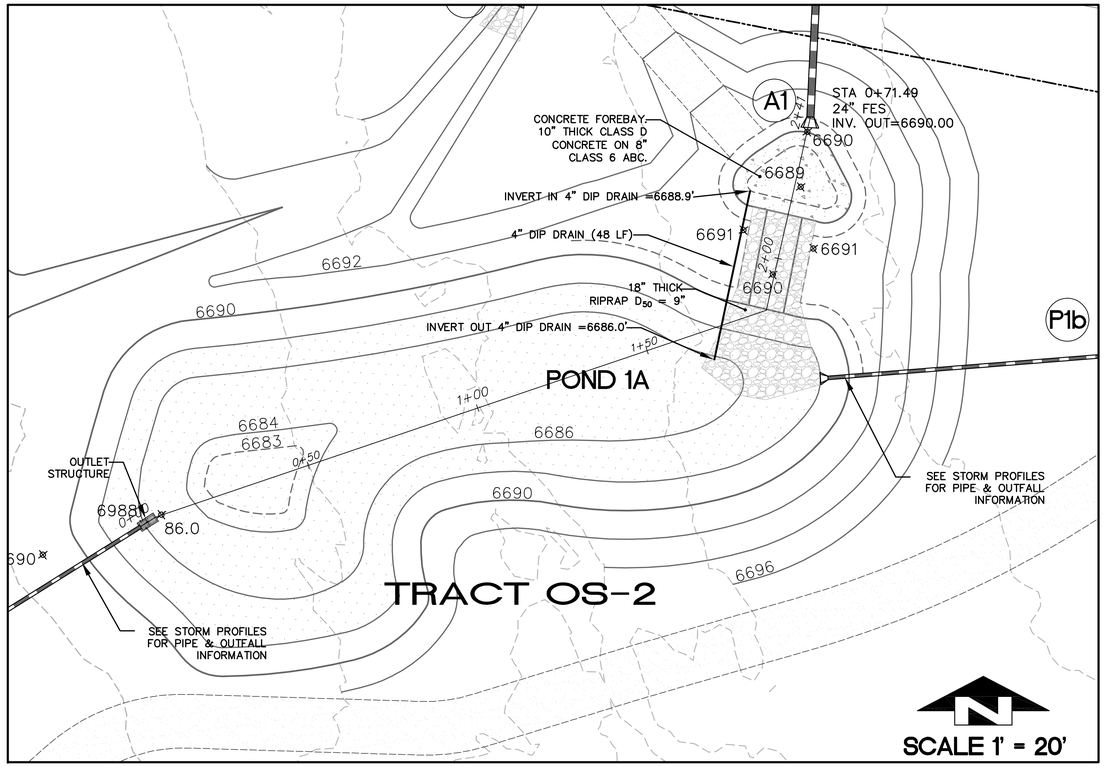

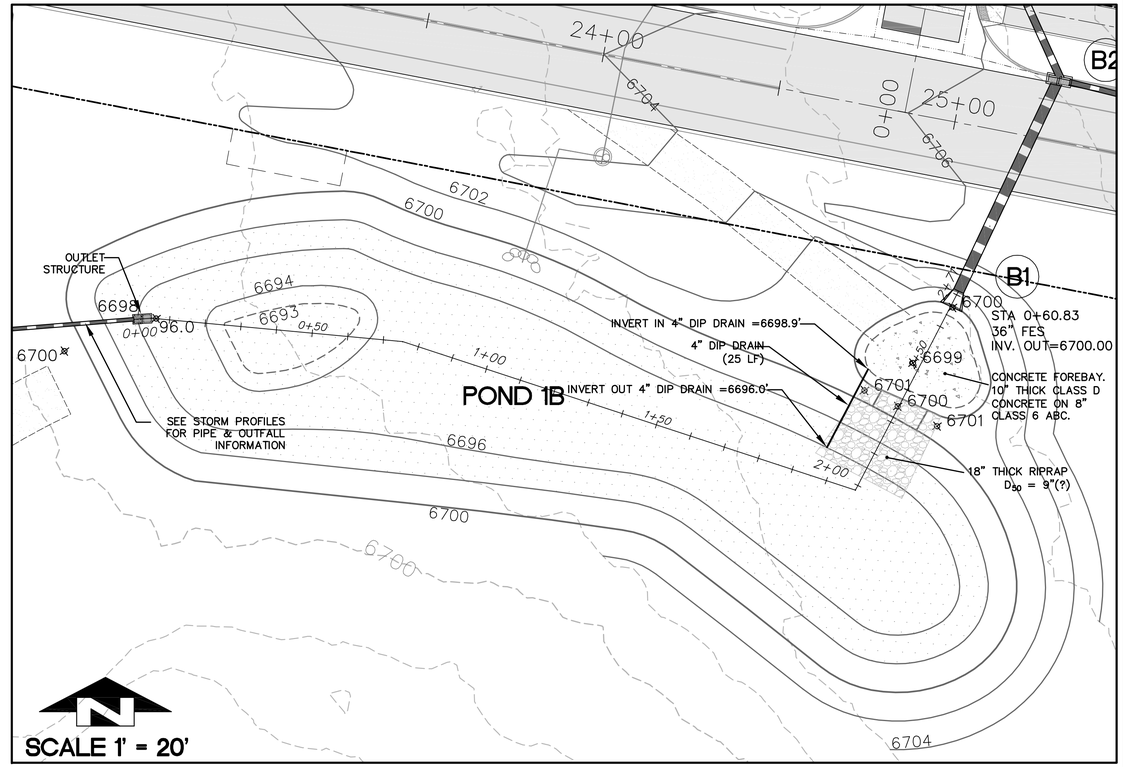

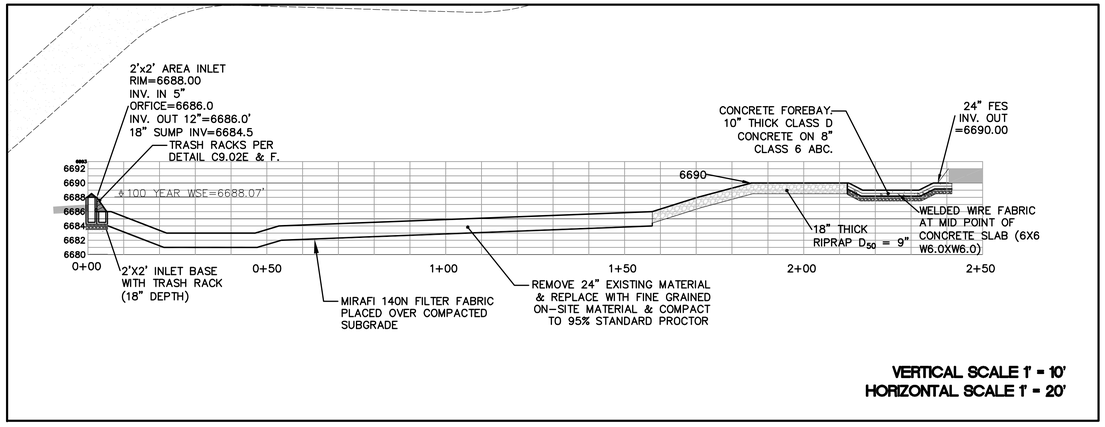

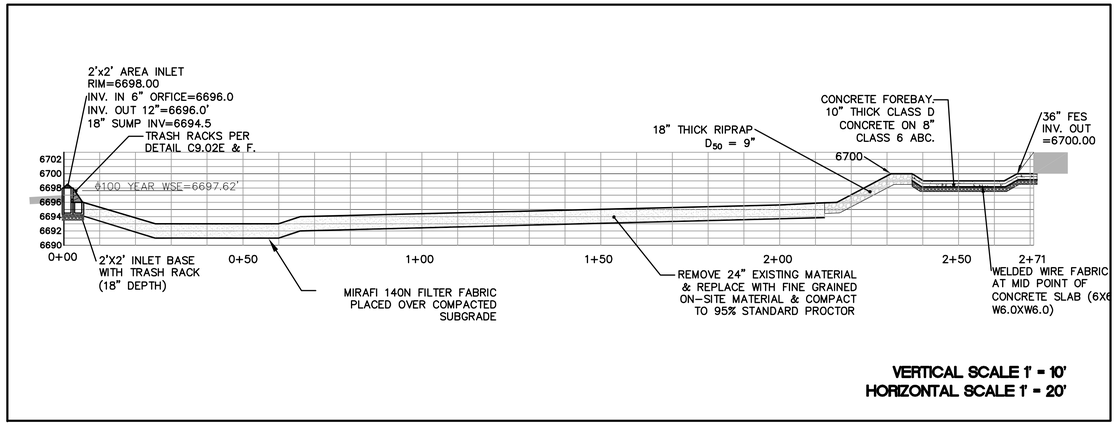

ALPINE ENGINEERING INC.
34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS, CO 81632 / 970.926.3373
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COLORADO LICENSED
MATTHEW C. WEIER
11-8-18
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

POND/STORM DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET
C9.03

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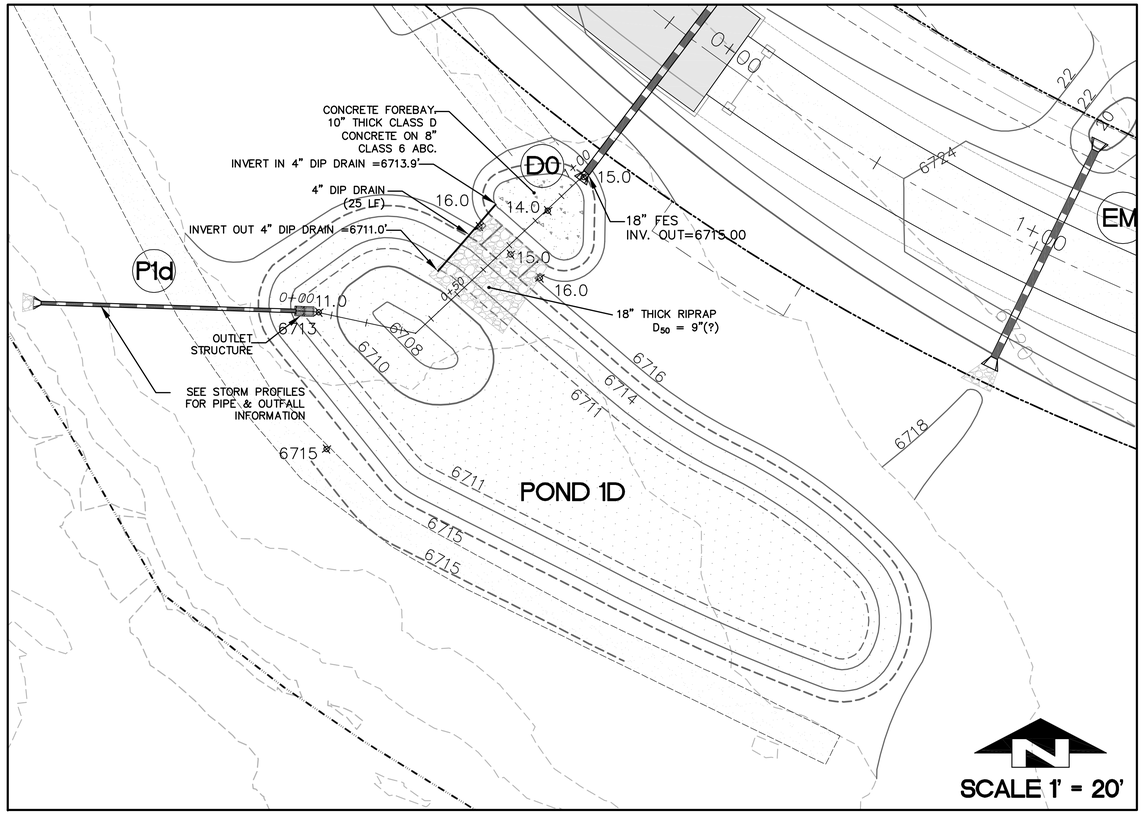

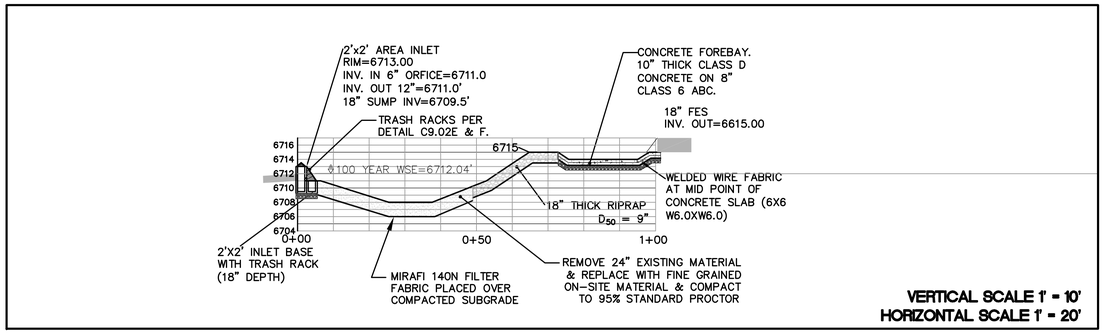

ALPINE ENGINEERING INC.
34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
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COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. WEIER 39865 7-8-19

HAYMEADOW FILING 1

POND/STORM DETAILS

NO.	DATE	REVISIONS	BY
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DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET C9.04

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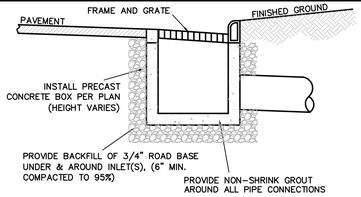
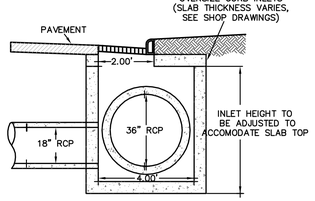
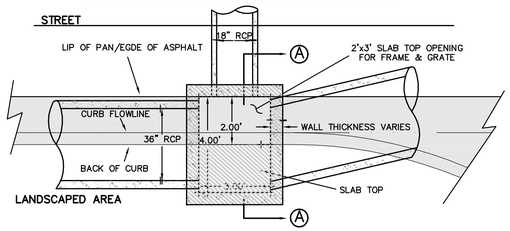


1. CURB INLET SIZES VARY. REFER TO PLAN SHEETS AND DRAINAGE TABLE FOR INLET SIZES AND INVERT INFORMATION. THE FABRICATOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO THE INSTALLATION OF CURB INLETS.
2. CURB INLET SIZES INDICATED ARE INSIDE OF BOX DIMENSIONS.
3. ALL CURB INLETS OTHER THAN THE 2'x3' CURB INLET WILL REQUIRE A SLAB TOP WITH THE APPROPRIATE SIZE OPENING TO ACCOMODATE A D & L, INC., FRAME & GRATE (SEE DETAIL FOR CURB INLET)
4. KNOCKOUTS SHALL BE PROVIDED ON ALL SIDES OF CURB INLETS WHERE CULVERT OPENINGS ARE NOT PREFABRICATED.
5. ALL CURB INLETS SHALL BE DESIGNED ACCORDING TO ASTM C857-87 AND ASTM C858-83. CURB INLETS SHALL ALSO BE DESIGNED FOR AASHTO HS-20 LOADING INCLUDING THOSE INLETS WHICH REQUIRE SLAB TOPS.
6. THE CULVERT CENTERLINES ARE ALIGNED WITH THE MID-POINT OF THE INSIDE FACE OF INLET.
7. THE INSIDE FACE OF CURB INLETS ARE ALIGNED WITH THE LIP OF PAN IN ALL CASES, I.E., OVERSIZED INLETS ARE SET BACK FROM ROAD.



SECTION A-A

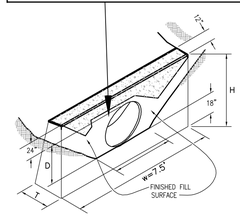


EXAMPLE OVERSIZE CURB INLET-PLAN VIEW

N.T.S.

A CURB INLET

INSTALL 24" WATERMAN C-10 CANAL GATE OR APPROVED EQUAL ON OUTSIDE OF HEADWALL. ADD 8" TO TOP OF HEADWALL TO ACCOMODATE MINIMUM HEIGHT OF CANAL GATE.



CONCRETE HEADWALL INSTALLATIONS

SEE M-601-10 FOR REINFORCING DETAILS

QUANTITIES FOR ONE CONCRETE HEADWALL (CUBIC YARDS)

PIPE		DIAMETER (AND EQUIVALENT DIAMETER) (INCHES)											
		18		24		30		36		42		48	
TYPE	MATERIAL	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE
CIRCULAR	RCP	1.0	1.3	1.5	2.0	2.0	2.7	2.8	3.6	3.6	4.6	4.6	6.0
	CMP OR PLASTIC	1.1	1.4	1.6	2.1	2.2	3.0	3.0	4.0	3.9	5.3	5.0	6.8
ELLIPTICAL	RCP	23 x 14		30 x 19		38 x 24		45 x 29		53 x 34		60 x 38	
		0.9	1.2	1.3	1.6	1.7	2.2	2.3	2.9	2.9	3.7	3.5	4.4
ARCH	CMP	22 x 13		29 x 18		36 x 22		43 x 27		50 x 31		58 x 36	
		0.9	1.3	1.4	1.9	1.8	2.4	2.4	3.4	3.2	4.4	3.4	5.0

SINGLE PIPE

GENERAL NOTES

1. FOR SIZE AND LOCATION OF CULVERTS, SEE PLANS.
2. ALL CONCRETE SHALL BE CDOT CLASS B.
3. FOOTINGS IN ROCK SHALL BE POURED OUT TO ROCK AND NOT FORMED.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 IN.

TYPE OF PIPE

CIRCULAR

HEADWALL DIMENSIONS

D = PIPE DIAMETER (INSIDE)
H = D + 30"
W = 3D + 18"
T = 0.4 H (NEAREST INCH)
B = 1.5 D (30" MINIMUM)
L = W + B

NOTE: VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED.

TYPE OF PIPE

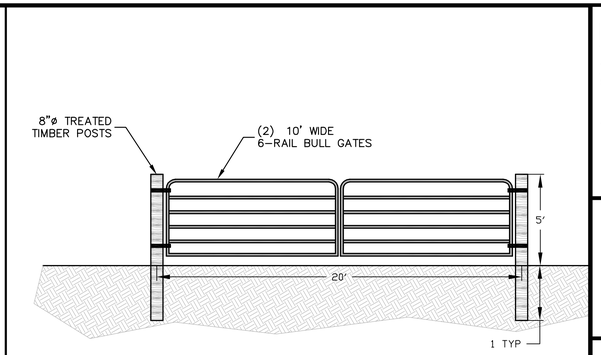
ARCH OR ELLIPTICAL

HEADWALL DIMENSIONS

D = EQUIVALENT CIRCULAR DIAMETER (INSIDE)
H = RISE + 30"
W = 3D + 18"
T = 0.4 H (NEAREST INCH)
B = 1.5 D (30" MINIMUM)
L = W + B

N.T.S.

B CONCRETE HEADWALL



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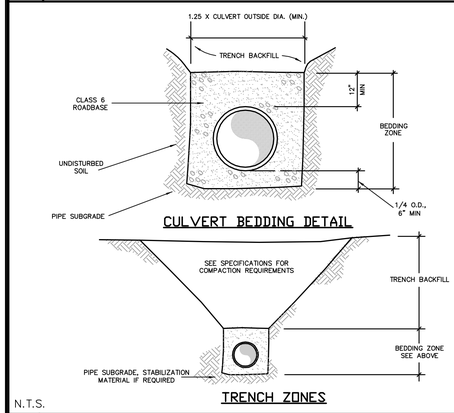
I 20' GATE DETAIL

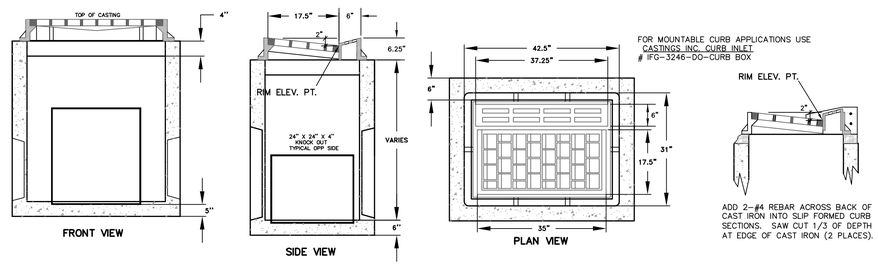


CULVERT BEDDING DETAIL

TRENCH ZONES

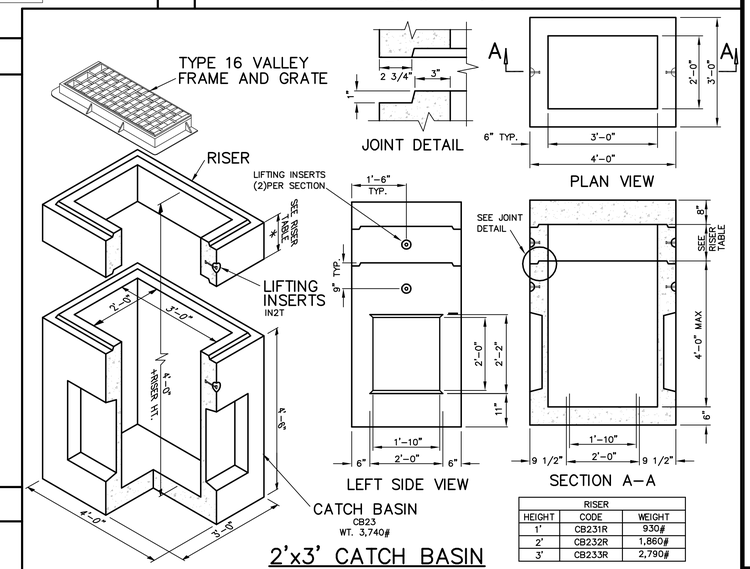
N.T.S.

C CULVERT BEDDING DETAIL



N.T.S.

D 30" MOUNTABLE CURB INLET DETAIL



CATCH BASIN
CB23
WT. 3,740#

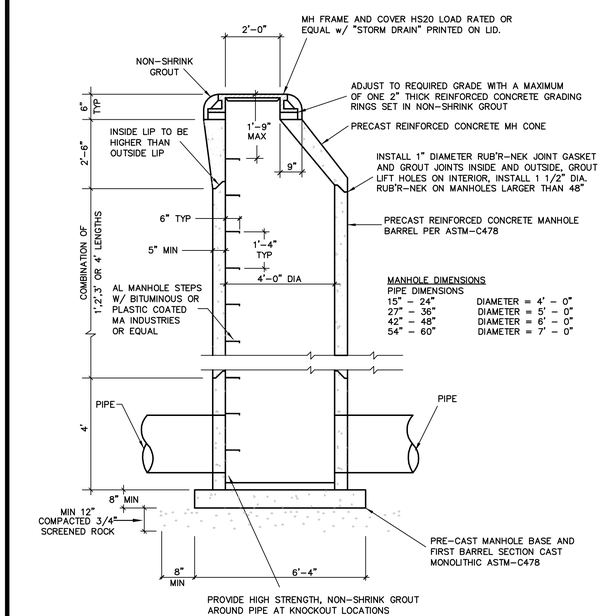
2'x3' CATCH BASIN

RISER		
HEIGHT	CODE	WEIGHT
1'	CB231R	930#
2'	CB232R	1,860#
3'	CB233R	2,790#

NOTES:
1. CATCH BASINS ARE DESIGNED TO MEET ASTM C858 WITH AASHTO HS-20 LOADING.
2. OPENINGS MAY BE LOCATED AS REQUIRED.
3. CHECK HARDWARE SECTION FOR OPTIONAL ACCESSORIES.

N.T.S.

E 2' x 3' INLET



MANHOLE DIMENSIONS

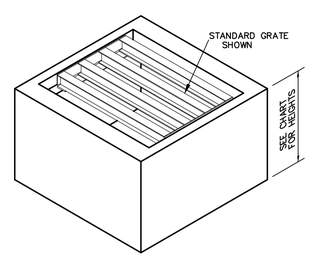
PIPE DIMENSIONS

15" - 24"	DIAMETER = 4' - 0"
27" - 36"	DIAMETER = 5' - 0"
42" - 48"	DIAMETER = 6' - 0"
54" - 60"	DIAMETER = 7' - 0"

N.T.S.

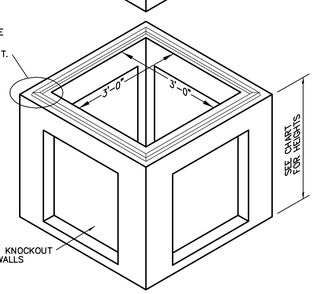
F STORM SEWER MANHOLE

RISER NUMBER	HEIGHT	WEIGHT
NO. 2127018	1'-0"	1,050
NO. 2127024	2'-0"	2,100
NO. 2127036	3'-0"	3,150
NO. 2127048	4'-0"	4,200
NO. 2127060	5'-0"	5,250
NO. 2127072	6'-0"	6,300

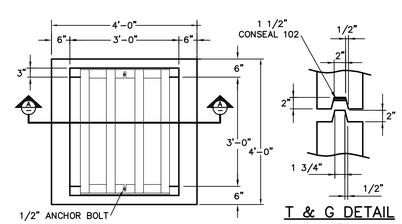


IF RISER IS REQUIRED, THE BASE IS POURED WITH A "TONGUE & GROOVE" JOINT.

BASE NUMBER	HEIGHT	WEIGHT
NO. 2125030	3'-0"	3,101
NO. 2125040	4'-0"	4,150
NO. 2125050	5'-0"	5,200
NO. 2125060	6'-0"	6,250



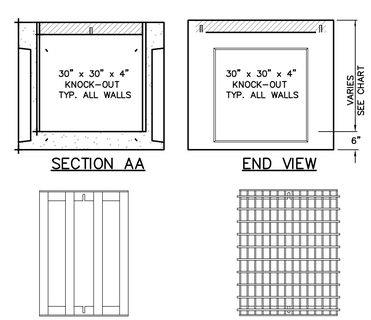
NOTES:
1. DESIGNED FOR AASHTO HS-20 LOADING.
2. DESIGNED ACCORDING TO ASTM C857-87 AND ASTM C858-83.



PLAN VIEW

T & G DETAIL

N.T.S.



SECTION AA

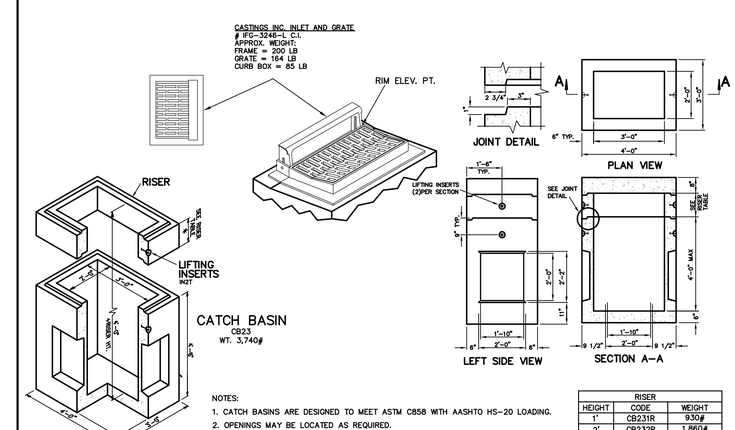
END VIEW

"STANDARD" HIGHWAY GRATE
WEIGHT: 260 lbs.
NO: 7200120

CLOSEMESH GRATE
WEIGHT: 130 lbs.
NO: 7200110

N.T.S.

G 3'x3' TYPE C INLET



CATCH BASIN
CB23
WT. 3,740#

NOTES:
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2. OPENINGS MAY BE LOCATED AS REQUIRED.
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2'	CB232R	1,860#
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N.T.S.

H 2' x 3' CURB INLET DETAIL

ALPINE ENGINEERING INC.
345 10 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
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COLORADO LICENSED
MATTHEW C. LEE
11-8-18
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PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

STORM DETAILS

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DESIGNED	MW, RL	
DRAWN	RF	
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SHEET C9.05

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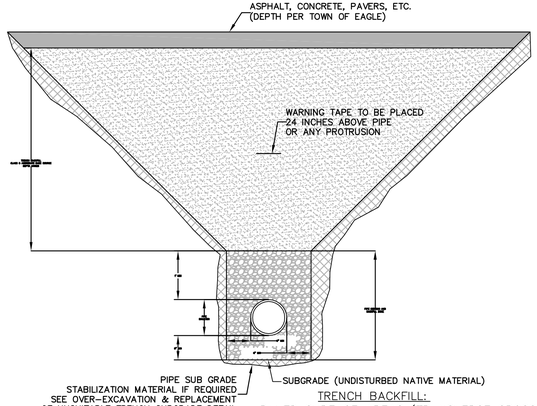
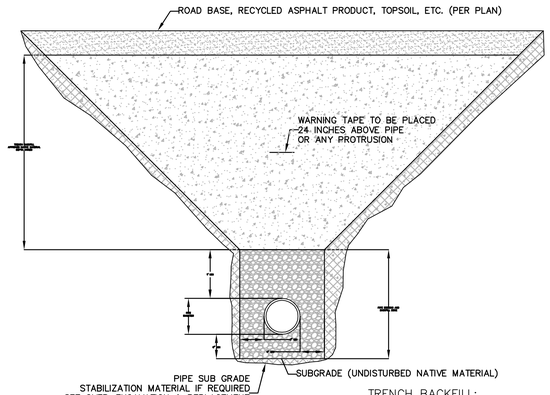
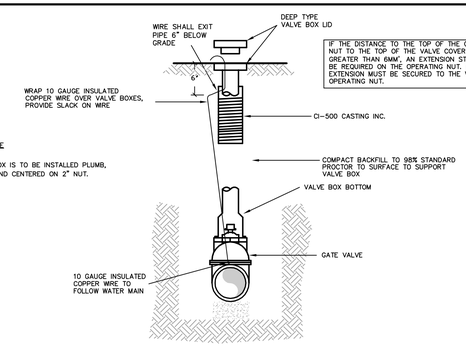


TRENCH BACKFILL:
PAVED SURFACE AREAS (TRANSVERSE CROSSINGS)



TRENCH BACKFILL:
UNPAVED SURFACE AREAS

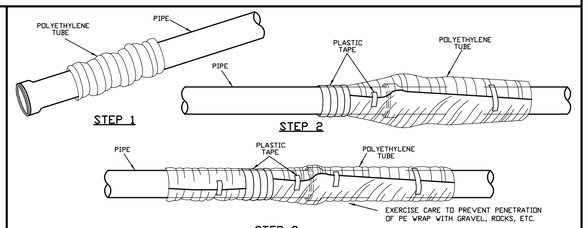
A TRENCH AND PIPE BEDDING DETAILS (SEWER AND WATER)



GENERAL NOTE

1. VALVE BOX IS TO BE INSTALLED PLUMB, LEVEL, AND CENTERED ON 2" NUT.

B GATE VALVE AND BOX ASSEMBLY



FIELD INSTALLATION - POLYETHYLENE WRAP

STEP 1 - PLACE TUBE OF POLYETHYENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO PLACE

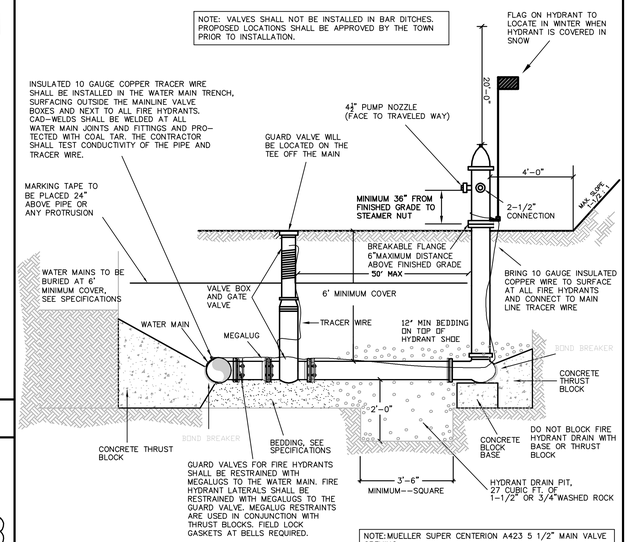
STEP 2 - PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE.

STEP 3 - OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.

NOTE:
ALL DUCTILE IRON PIPE IS TO POLYETHYLENE WRAPPED UNLESS OTHERWISE DETERMINED TO NOT BE REQUIRED BY THE TOWN OF EAGLE

C POLYETHYLENE WRAP

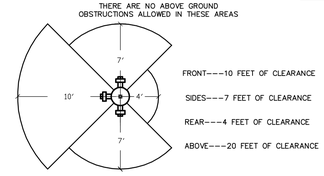
NOTE: VALVES SHALL NOT BE INSTALLED IN BAR DITCHES. PROPOSED LOCATIONS SHALL BE APPROVED BY THE TOWN PRIOR TO INSTALLATION.



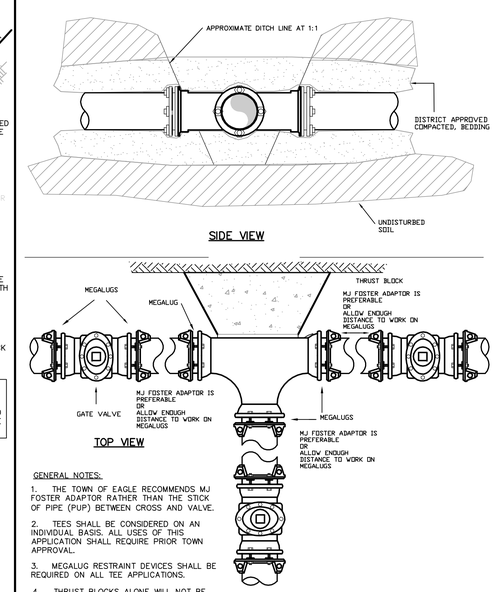
NOTE:MUELLER SUPER CENTERION A423 5 1/2" MAIN VALVE OPENING.
FIRE HYDRANTS WILL NOT BE DEEPER THAN 7' 6".
EXTENSIONS WILL NOT BE ALLOWED. BENDS WILL BE UTILIZED TO BRING THE HYDRANT TO GRADE. RESTRAINED JOINTS ARE REQUIRED FROM GUARD VALVE TO HYDRANT.

HYDRANT CLEARANCE DIAGRAM

THERE ARE NO ABOVE GROUND OBSTRUCTIONS ALLOWED IN THESE AREAS



D FIRE HYDRANT ASSEMBLY



GENERAL NOTES:

1. THE TOWN OF EAGLE RECOMMENDS MJ FOSTER ADAPTOR RATHER THAN THE STICK OF PIPE (PUP) BETWEEN CROSS AND VALVE.

2. TEES SHALL BE CONSIDERED ON AN INDIVIDUAL BASIS. ALL USES OF THIS APPLICATION SHALL REQUIRE PRIOR TOWN APPROVAL.

3. MEGALUG RESTRAINT DEVICES SHALL BE REQUIRED ON ALL TEE APPLICATIONS.

4. THRUST BLOCKS ALONE WILL NOT BE ACCEPTED AS A RESTRAINT.

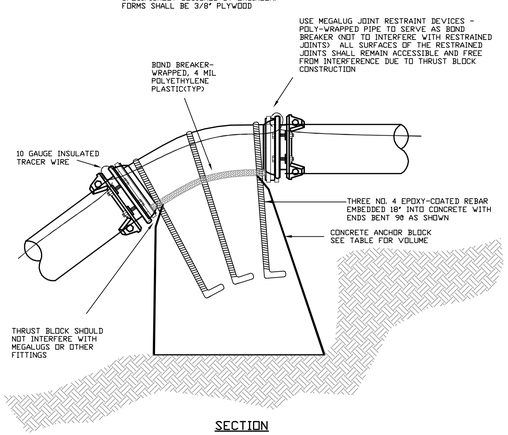
E TEE DETAIL

MINIMUM CUBIC YARDS OF CONCRETE

SIZE OF PIPE	BENDS 11-1/4°	22-1/2°	45°	90°
4"	0.2	0.4	1.3	N/A
6"	0.2	0.5	1.8	N/A
8"	0.2	0.5	1.8	N/A
10"	0.2	0.8	2.7	N/A
12"	0.3	1.0	3.8	N/A

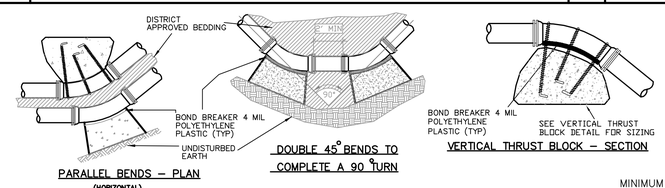
NA = NOT ALLOWED

NOTE: PIPE LARGER THAN 12" TO BE SPECIFICALLY DESIGNED BY ENGINEER. FORMS SHALL BE 3/8" PLYWOOD



SECTION

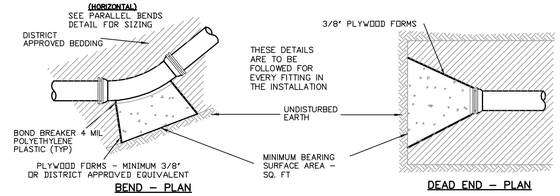
F VERTICAL THRUST BLOCK



PARALLEL BENDS - PLAN

DOUBLE 45° BENDS TO COMPLETE A 90° TURN

VERTICAL THRUST BLOCK - SECTION



BEND - PLAN

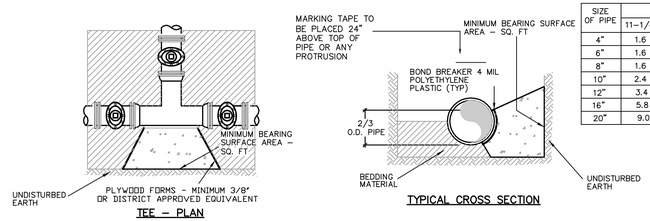
DEAD END - PLAN

MINIMUM BEARING SURFACE (SF)
FOR 200 PSI AND LESS

SIZE OF PIPE	BENDS 11-1/4°	22-1/2°	45°	90°	TEE OR DEAD END
4"	1.3	2.5	2.5	4	6.4
6"	1.3	2.5	5.0	9.0	6.4
8"	1.3	2.5	5.0	9.0	6.4
10"	1.9	3.8	7.4	13.7	9.7
12"	2.7	5.4	10.5	19.3	13.7
16"	4.7	9.3	19.1	33.6	23.8
20"	7.2	14.3	28.0	51.8	36.6

MINIMUM BEARING SURFACE (SF)
FOR 201 TO 250 PSI

SIZE OF PIPE	BENDS 11-1/4°	22-1/2°	45°	90°	TEE OR DEAD END
4"	1.6	3.1	4	4	8.0
6"	1.6	3.1	6.2	11.4	8.0
8"	1.6	3.1	6.2	11.4	8.0
10"	2.4	4.7	9.25	17.1	12.0
12"	3.4	6.7	13.1	24.2	17.1
16"	5.8	11.6	22.7	42.0	29.7
20"	9.0	17.9	35.0	64.8	45.8



TEE - PLAN

TYPICAL CROSS SECTION

GENERAL NOTES

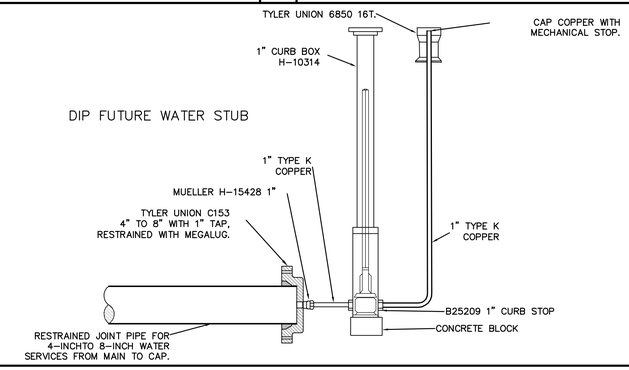
1. MEGALUG RESTRAINTS SHALL BE USED IN CONJUNCTION WITH THRUSTBLOCKS.

2. MINIMUM AREA REQUIRED WILL BE THAT OF AN 8 INCH MAIN

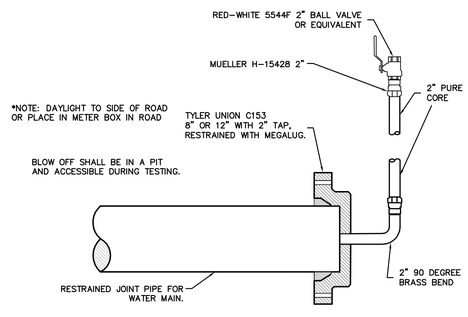
3. ALL THRUST BLOCKS SHALL BE FORMED. THE MINIMUM THICKNESS FORM MATERIAL SHALL BE 3/8" PLYWOOD OR DISTRICT APPROVED EQUIVALENT.

4. BEARING AREA BASED ON SOIL BEARING PRESSURE OF 2000 LB/SF.

G CONCRETE THRUST BLOCKS



H DIP BLOWOFF



I TEMPORARY CONSTRUCTION BLOWOFF

ALPINE ENGINEERING INC.
345 10 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED
MATTHEW C. LEE
11-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

WATER DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

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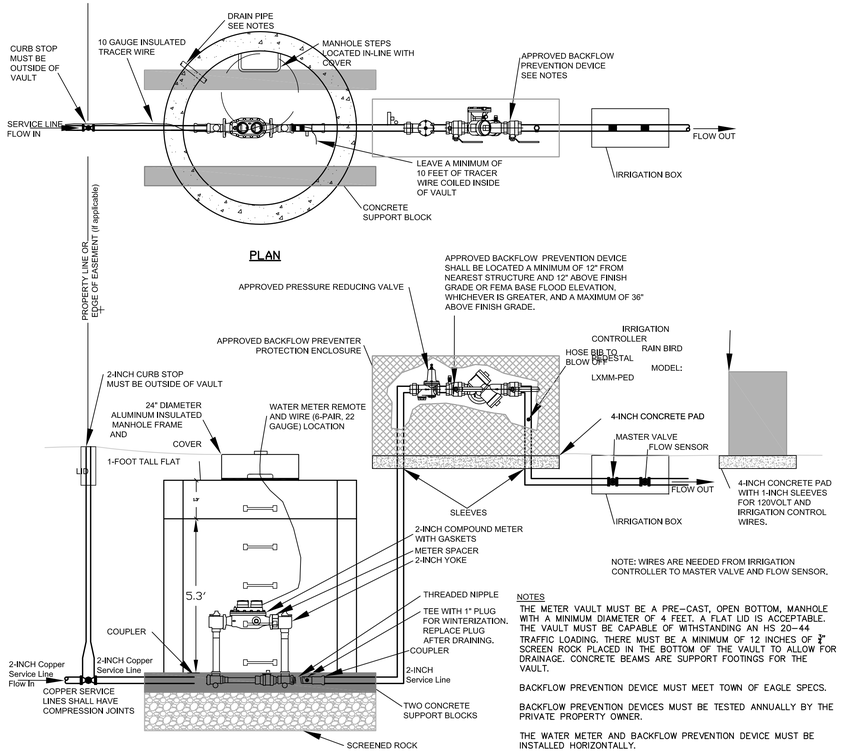


NOTES

THE METER VAULT MUST BE A PRE-CAST, OPEN BOTTOM, MANHOLE WITH A MINIMUM DIAMETER OF 4 FEET. A FLAT LID IS ACCEPTABLE. THE VAULT MUST BE CAPABLE OF WITHSTANDING AN HS 20-44 TRAFFIC LOADING. THERE MUST BE A MINIMUM OF 12 INCHES OF 3/4" SCREEN ROCK PLACED IN THE BOTTOM OF THE VAULT TO ALLOW FOR DRAINAGE. CONCRETE BEAMS ARE SUPPORT FOOTINGS FOR THE VAULT.

BACKFLOW PREVENTION DEVICE MUST MEET TOWN OF EAGLE SPECS.

BACKFLOW PREVENTION DEVICES MUST BE TESTED ANNUALLY BY THE PRIVATE PROPERTY OWNER.

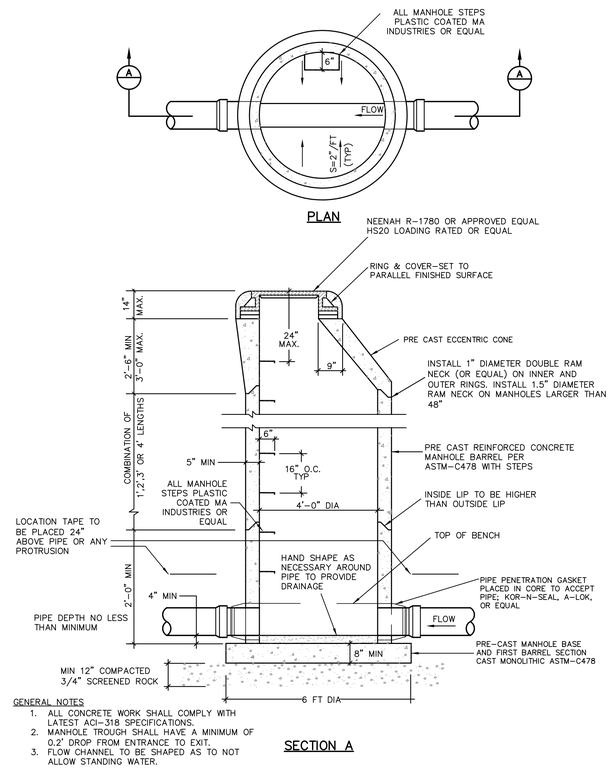
THE WATER METER AND BACKFLOW PREVENTION DEVICE MUST BE INSTALLED HORIZONTALLY.

INSTALLATION OF A PRESSURE REDUCING VALVE IS RECOMMENDED.

COPPER CLAD GROUNDING ROD PER ELECTRICAL INSPECTOR.

N.T.S.

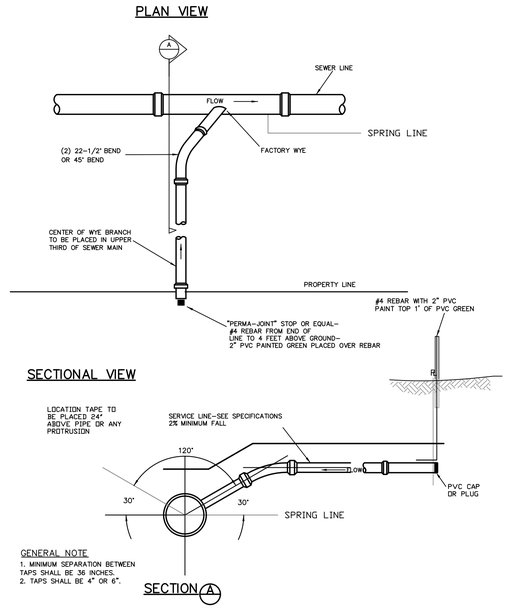
A IRRIGATION METER VAULT AND CONTROLS 2-INCH



GENERAL NOTES
1. ALL CONCRETE WORK SHALL COMPLY WITH LATEST ACI-318 SPECIFICATIONS.
2. MANHOLE TROUGH SHALL HAVE A MINIMUM OF 0.2' DROP FROM ENTRANCE TO EXIT.
3. FLOW CHANNEL TO BE SHAPED AS TO NOT ALLOW STANDING WATER.

N.T.S.

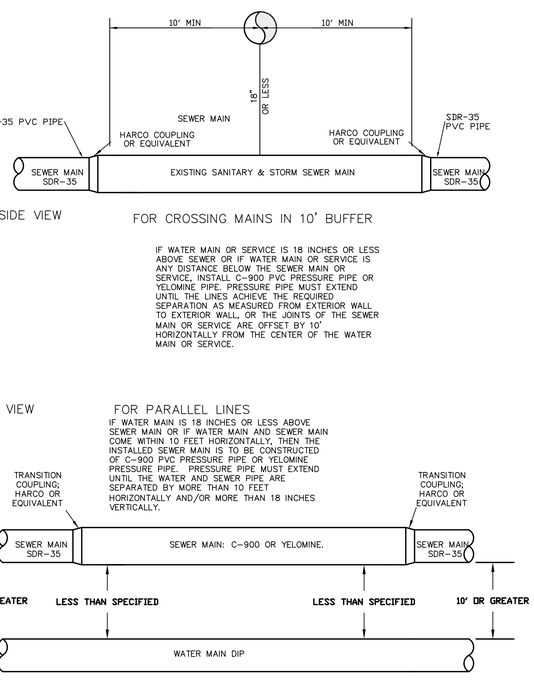
B STANDARD MANHOLE



GENERAL NOTE
1. MINIMUM SEPARATION BETWEEN TAPS SHALL BE 36 INCHES.
2. TAPS SHALL BE 4" OR 6".

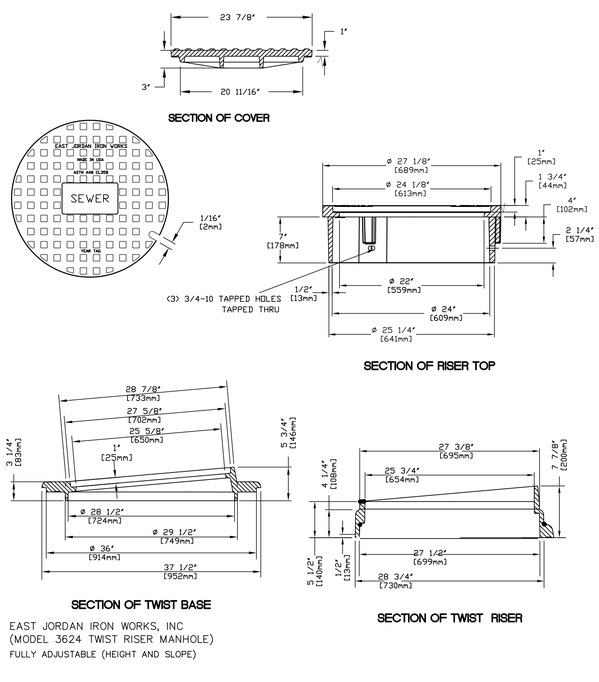
N.T.S.

C SEWER SERVICE CONNECTION FROM MAIN



N.T.S.

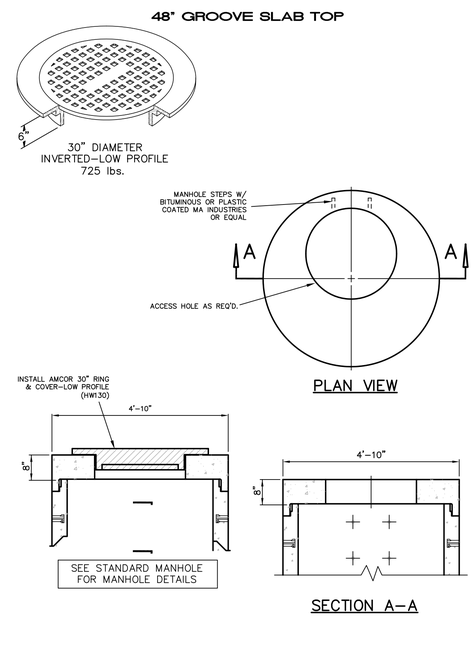
D WATER/SEWER CROSSING (ENCASEMENT (C900))



EAST JORDAN IRON WORKS, INC
(MODEL 3624 TWIST RISER MANHOLE)
FULLY ADJUSTABLE (HEIGHT AND SLOPE)

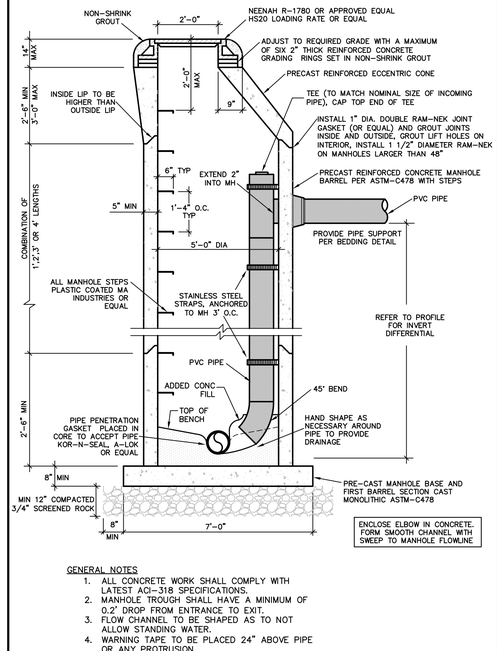
N.T.S.

E ADJUSTABLE TWIST RISER MANHOLE



N.T.S.

F FLAT TOP MANHOLE (SHALLOW MANHOLE)



GENERAL NOTES
1. ALL CONCRETE WORK SHALL COMPLY WITH LATEST ACI-318 SPECIFICATIONS.
2. MANHOLE TROUGH SHALL HAVE A MINIMUM OF 0.2' DROP FROM ENTRANCE TO EXIT.
3. FLOW CHANNEL TO BE SHAPED AS TO NOT ALLOW STANDING WATER.
4. WARNING TAPE TO BE PLACED 24" ABOVE PIPE OR ANY PROTRUSION.

N.T.S.

G INTERNAL DROP MANHOLE

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MATTHEW C. WILSON
11-8-18
39865
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HAYMEADOW FILING 1

WATER & SEWER DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C9.07

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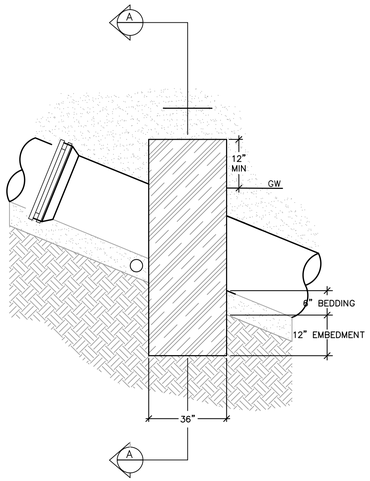
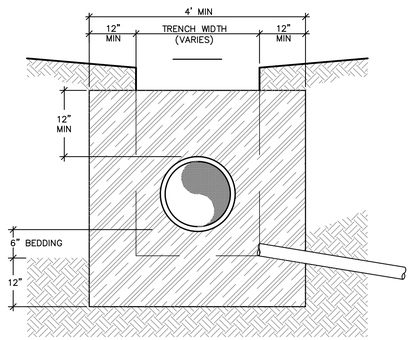
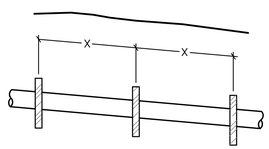




SECTION (A)

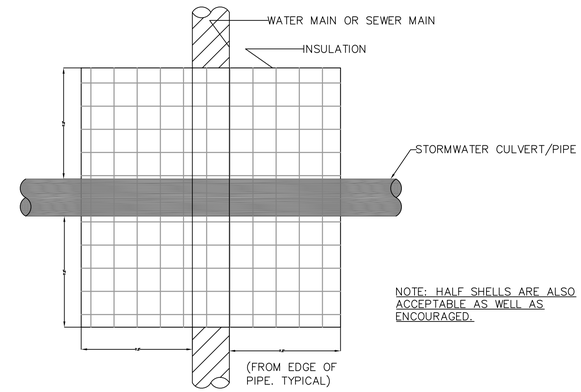


ELEVATION

N.T.S.

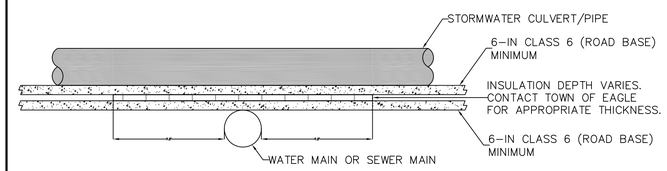
A GROUNDWATER BARRIER-WATER/SEWER MAIN

TOWN OF EAGLE
INSULATION DETAIL



NOTE: HALF SHELLS ARE ALSO ACCEPTABLE AS WELL AS ENCOURAGED.

PLAN VIEW



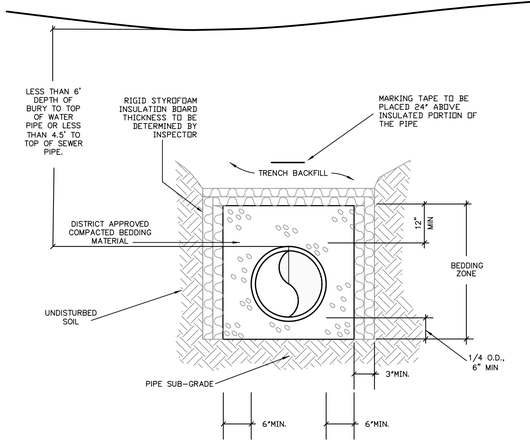
PROFILE VIEW

NOTE:
1. INSULATION CAN NOT BE BROKEN. NEEDS PROTECTED TOP AND BOTTOM. NO GAPS. FITTED TOGETHER AND DUCT TAPE.
2. INSULATION NEEDS TO BE 6-FT MINIMUM FROM EDGE OF PIPE

N.T.S.

B WATER/SEWER LINE INSULATION

TOWN OF EAGLE
ALTERNATE INSULATION DETAIL



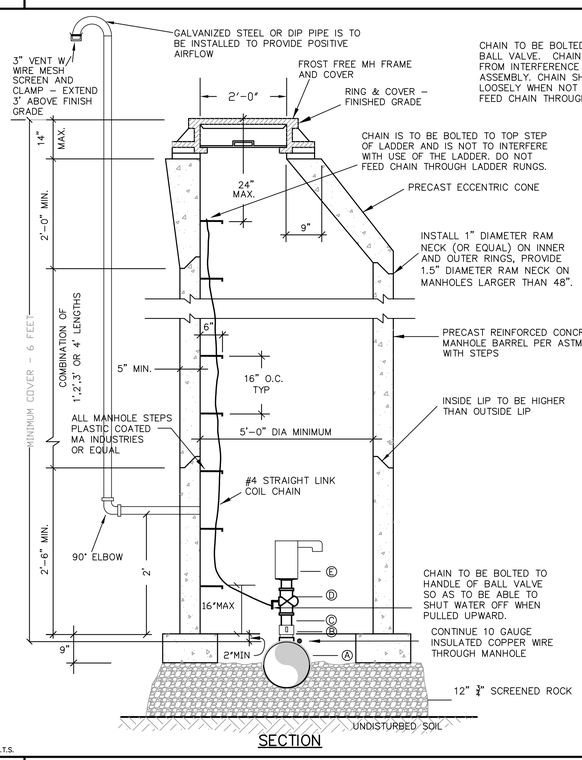
ELEVATION

GENERAL NOTES

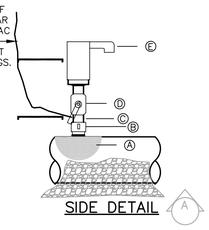
1. CONDITION OF LESS THAN MINIMUM BURY DEPTH ALLOWED ONLY WITH WRITTEN APPROVAL FROM THE TOWN PRIOR TO CONSTRUCTION. INSULATION SHALL BE INSTALLED ON ALL PIPE THAT DOES NOT MEET MINIMUM BURY REQUIREMENTS.
2. SEE SEWER AND WATER PIPE BEDDING DETAIL FOR BACKFILL MATERIAL AND COMPACTION SPECS.
3. INSULATION SHALL BE INSTALLED ON ALL PIPE THAT IS WITHIN THE MINIMUM BURY OF ANY DRAINAGE CULVERT. THIS APPLIES TO THE BOTTOM OF THE PIPE IF IT CROSSES OVER TOP OF THE CULVERT.

N.T.S.

C WATER/SEWER LINE INSULATION - ALTERNATE



SECTION



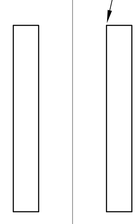
SIDE DETAIL

GENERAL NOTES

1. ALL CONCRETE WORK SHALL COMPLY WITH LATEST ACI-318 SPECIFICATIONS.
2. AIR VALVE ASSEMBLY LARGER THAN 2" SIZE SHALL BE SPECIALLY DESIGNED AND MEET TOWN REQUIREMENTS.
3. THE INSTALLATION OF THE CHAIN SHALL ENABLE ISOLATING A DEFECTIVE AIR-VAC WITHOUT SHUTTING OFF THE MAIN.
4. AN INSULATION BLANKET IS REQUIRED TO BE INSTALLED AT THE DIRECTION OF THE DISTRICT INSPECTORS.

LEGEND

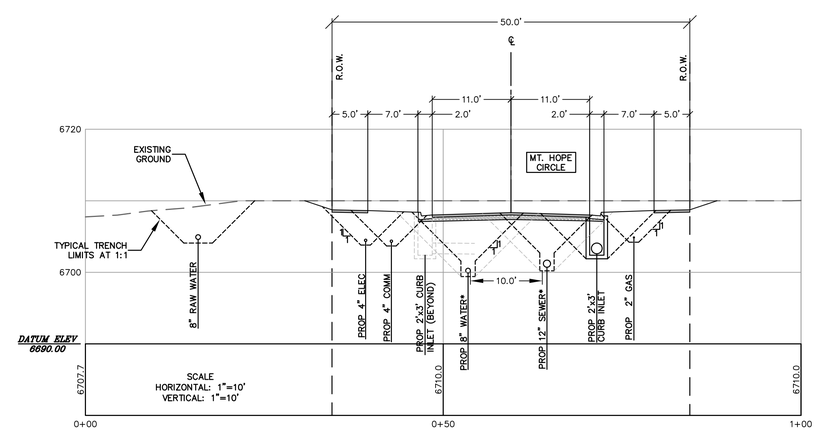
A. 2" MUELLER BR2 (CC THREAD) OR EQUAL (BRONZE) SADDLE
B. 2" CORPORATION STOP MUELLER B-25008
C. 2" THREADED BRASS NIPPLE
D. 2" FEMALE-FEMALE THREADED BRASS BALL VALVE
E. 2" THREADED ARI D-040 ST ST 2"



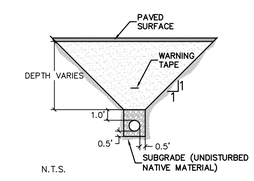
FOOTING PLAN

N.T.S.

D AIR RELEASE VALVE



NOTE: WATER/SEWER COULD USE TRENCH BOX TO REDUCE WIDTH OF IMPACT TO ROADWAY



N.T.S.

DETAIL A1 FROM TOE PW MANUAL

E TYPICAL ROAD SECTION WITH UTILITIES (STA 1+50 MT. HOPE CIRCLE)

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34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. WEIR 11-8-19 39865

HAYMEADOW FILING 1

WATER & SEWER DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

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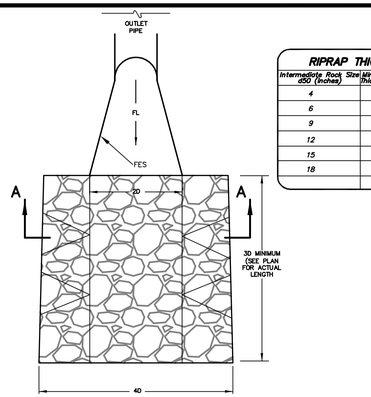


RIPRAP THICKNESS

Intermediate Rock Size d50 (inches)	Minimum Blanket Thickness (inches)
4	9
6	14
9	20
12	27
15	32
18	32

RIPRAP LINED CHANNEL

NOTE: 1. SEE PLANS FOR D (INSIDE DIAMETER OF CULVERT) & NOMINAL STONE SIZE (d50)

RIPRAP

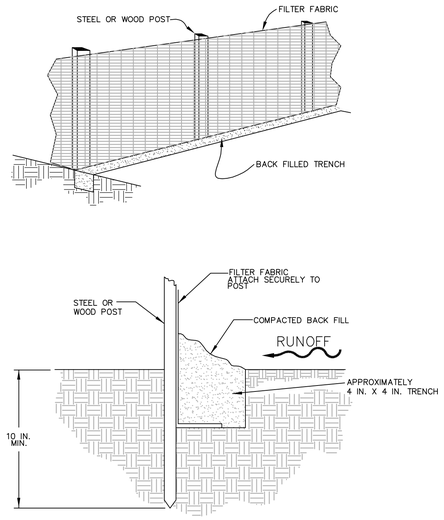
RIPRAP shall conform to the material, gradation and construction requirements of Section 506, Riprap, of the State Department of Highways, Division of Highways, State of Colorado, Standard Specifications for Road and Bridge Construction. Table 506-2E is reproduced below.

Table 5-1
Classification and Gradation of Ordinary Riprap

Riprap Designation	% Smaller than Given Size by Weight	Intermediate Rock Dimension (Inches)	d50* (Inches)
Type L	70-100	15	
	50-70	12	
	35-50	9	9**
	2-10	3	

*d50 = nominal stone size
** Bury types VL and L with native top soil and revegetate to protect from vandalism.

A CULVERT RIPRAP OUTLET PROTECTION



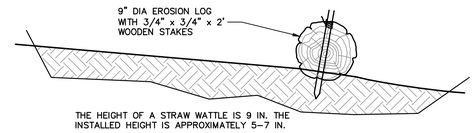
SECTION VIEW
SILT FENCE DETAIL

GENERAL NOTES:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE HALF THE HEIGHT OF THE FENCE HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA TRIBUTARY TO A SEDIMENT BASIN OR OTHER FILTERING MEASURE.

SYMBOL ON PLANS —— SLT —— SLT ——

B SILT FENCE



EROSION LOG WATTLE DETAIL

N.T.S.

THIS SEDIMENT BARRIER IS DESIGNED FOR LOW SURFACE FLOWS NOT TO EXCEED 1 CFS FOR SMALL AREAS, SLOPE FLATTER THAN 3:1 OR SHORT SLOPES, AND WHERE SILT FENCES ARE NOT PRACTICABLE. STRAW WATTLES CAN ALSO BE INSTALLED ON CONTOUR ON STEEPER SLOPES TO REDUCE SURFACE, SPREAD WATER FLOW AND CAPTURE SEDIMENT. THE FOLLOWING IS A BRIEF DESCRIPTION OF THE STRAW WATTLES, THEIR USES AND INSTALLATION.

1. THE HEIGHT OF A STRAW WATTLE IS 9 IN. THE INSTALLED HEIGHT IS APPROXIMATELY 5 -7 IN. THE STANDARD LENGTH OF STRAW WATTLES IS 25 FT., HOWEVER OTHER LENGTHS WILL BE MADE UPON REQUEST.

2. STRAW WATTLES CAN BE INSTALLED ON CONTOUR OF SLOPE, WITH A SLIGHT DOWNSLOPE ANGLE AT THE END OF EACH ROW TO ALLOW FOR SLOW DRAINAGE DURING HEAVY PRECIPITATION. THEY CAN ALSO BE USED AT THE TOP OF SLOPES TO PREVENT SHEETING OVER THE EDGE, AND THEY CAN BE USED AT THE TOE OF SLOPES. STRAW WATTLES CAN ALSO BE USED ALONG SIDEWALKS AND CURBS AND AROUND STORM DRAINS AND INLETS TO PREVENT SEDIMENT POLLUTION.

3. STRAW WATTLES CAN BE USED TO REPLACE SILT FENCES, STRAW BALE DIKES AND SAND BAG BARRIERS. THEY CAN ALSO BE PLACED IN DRAINAGE SWALES TO SLOW FLOWS AND CAPTURE SEDIMENT: THEY CAN BE USED AS LEVEL SPREADERS TO PREVENT CONCENTRATED FLOW, AND IN PLACE OF EARTHEN BERMS OR DIKES.

4. STRAW WATTLES SHOULD BE INSTALLED ON SURFACE.

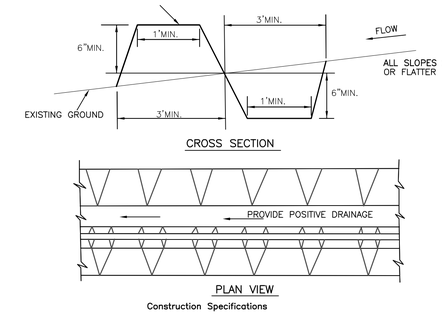
5. LAY THE WATTLE IN THE TRENCH AND STAKE WITH 3/4" X 3/4" X 18" OR 24" WOOD STAKES AT EACH END AND 4-FOOT ON CENTER. WHEN INSTALLING RUNNING LENGTHS, STRAW WATTLE ENDS SHOULD BE BUTTONED FIRMLY TOGETHER TO PREVENT LEAKAGE, AND SECURELY STAKED TOGETHER BUT OVERLAPPING IS ACCEPTABLE.

6. WHEN USED ON SLOPES, STRAW WATTLES DO NOT REQUIRE REMOVAL AND CAN BE ABANDONED IN PLACE. HOWEVER, WHEN USED FOR TEMPORARY PURPOSES SUCH AS ALONG SIDEWALKS AN CURBS, OR AROUND STORM DRAINS, THEY CAN BE REMOVED AND REUSED.

7. WATTLES INSTALLED ON SLOPES THAT ARE STEEPER THAN 2:1 SHALL BE SPACED AT 10' INTERVALS RATHER THAN 20' INTEVALS.

SYMBOL ON PLANS —— W —— W ——

C STRAW WATTLES-SLOPE PROTECTION



Construction Specifications

1. ALL EARTH BERMS SHALL HAVE AN UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%.

2. RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.

3. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT A NON-EROSIVE VELOCITY.

4. THE BERM/SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS-SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.

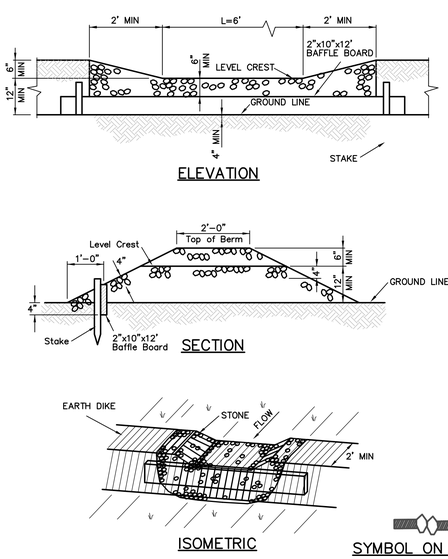
5. FILL SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.

6. STABILIZATION WITH SEED AND MULCH OR AS SPECIFIED OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALL BE COMPLETED WITHIN 7 DAYS UPON REMOVAL.

7. INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

STANDARD SYMBOL

D EARTH BERM/SWALE



SYMBOL ON PLANS

CONSTRUCTION SPECIFICATIONS

1. THE STONE SHALL BE CRUSHED STONE. GRAVEL MAY BE USED IF CRUSHED STONE IS NOT AVAILABLE. THE STONE SHALL MEET AASHTO DESIGNATION M43 SIZE NO. 2 OR 24.

2. THE CREST OF THE STONE DIKE SHALL BE AT LEAST SIX INCHES LOWER THAN THE LOWEST ELEVATION OF THE TOP OF THE EARTH DIKE AND AND SHALL BE LEVEL.

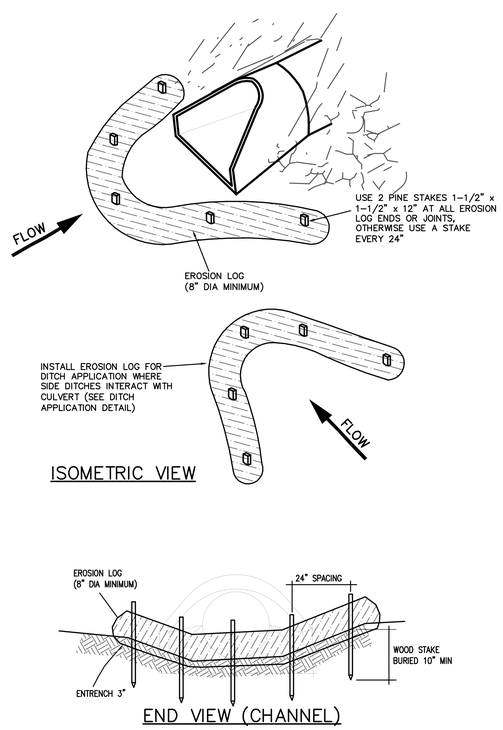
3. THE STONE OUTLET STRUCTURE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR INCHES.

4. THE MINIMUM LENGTH, IN FEET, OF THE CREST OF THE STONE OUTLET STRUCTURE SHALL BE SIX.

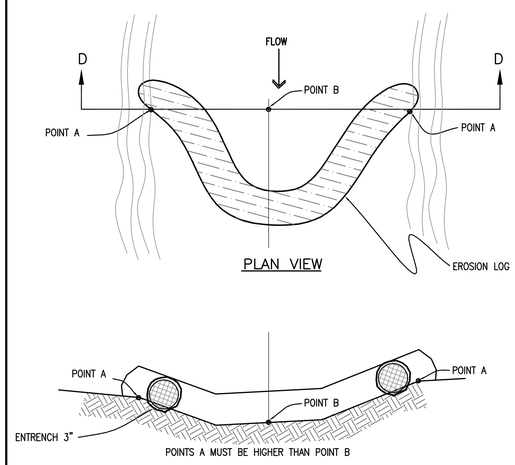
5. THE STONE OUTLET STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN, AND THE STONE SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE STONE, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

6. THE BAFFLE BOARD SHALL BE EXTENDED ONE FOOT INTO THE DIKE, STAKED AND EMBEDDED 4 INCHES INTO EXISTING GROUND.

E STONE OUTLET STRUCTURE

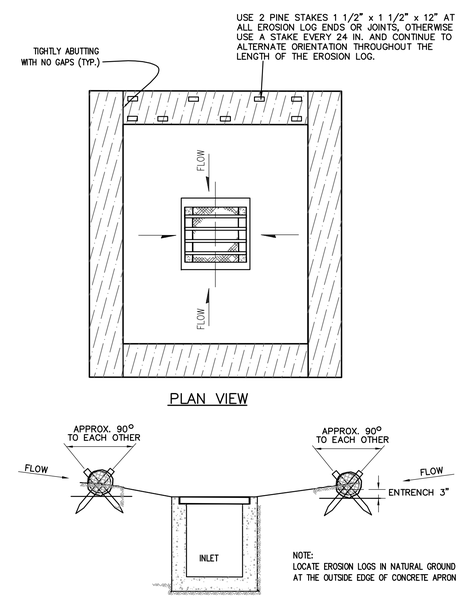


F WATTLE CULVERT PROTECTION



SYMBOL ON PLANS

G DITCH WATTLES



H WATTLE INLET PROTECTION

ALPINE ENGINEERING INC.
34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. WEIER 11-8-19 39865

HAYMEADOW FILING 1

SEDIMENT CONTROL DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C9.09

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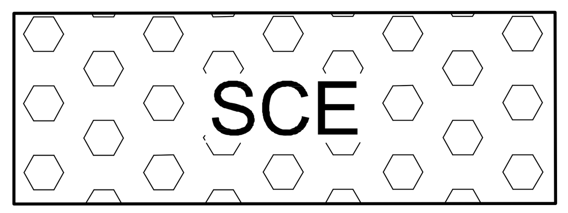
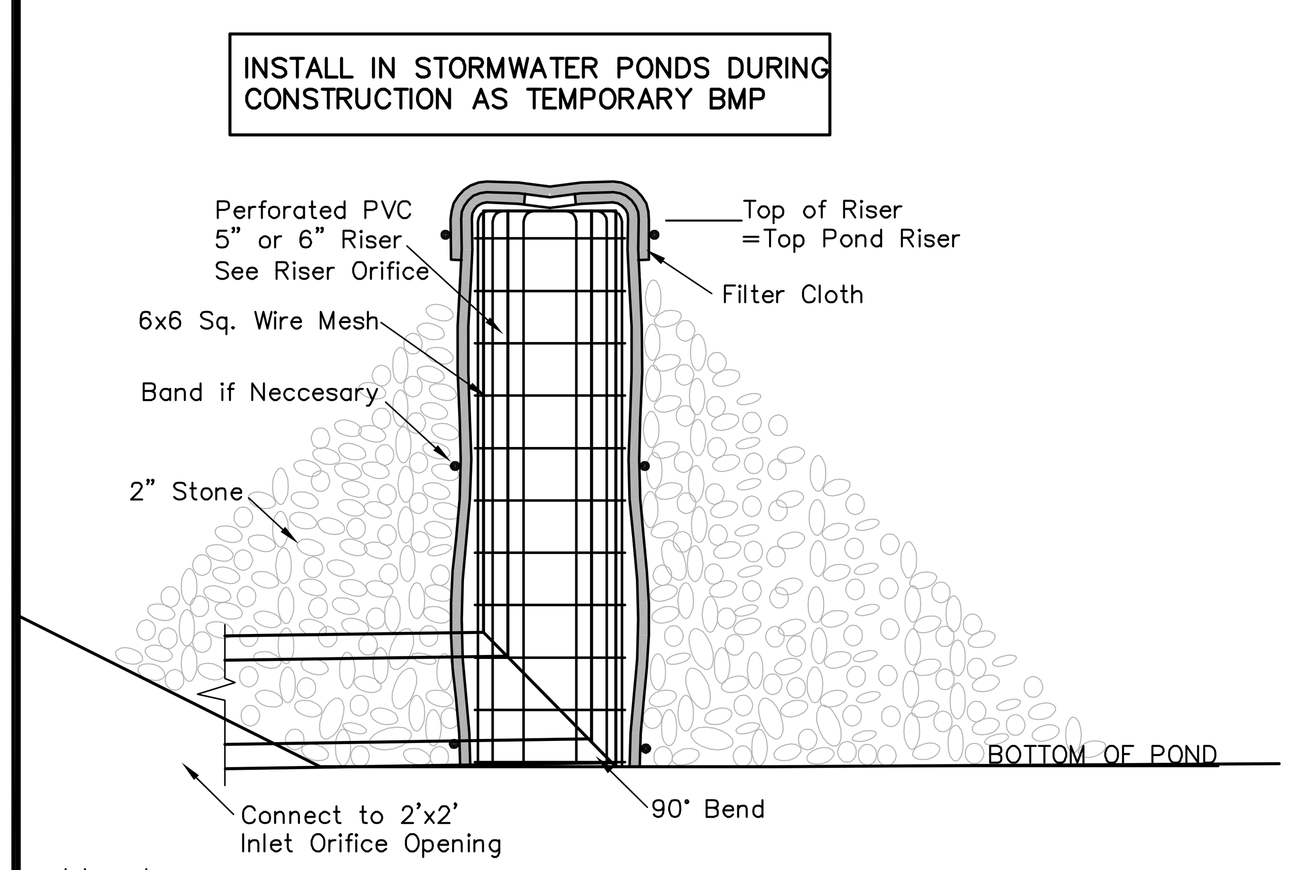
SEE TOWN OF EAGLE PUBLIC WORKS MANUAL– APPENDIX E TRACKING PAD DETAIL (E11)



SYMBOL ON PLANS

H STABILIZED CONSTRUCTION ENTRANCE



not to scale

A TEMPORARY SEDIMENT TRAP RISER MODIFICATION

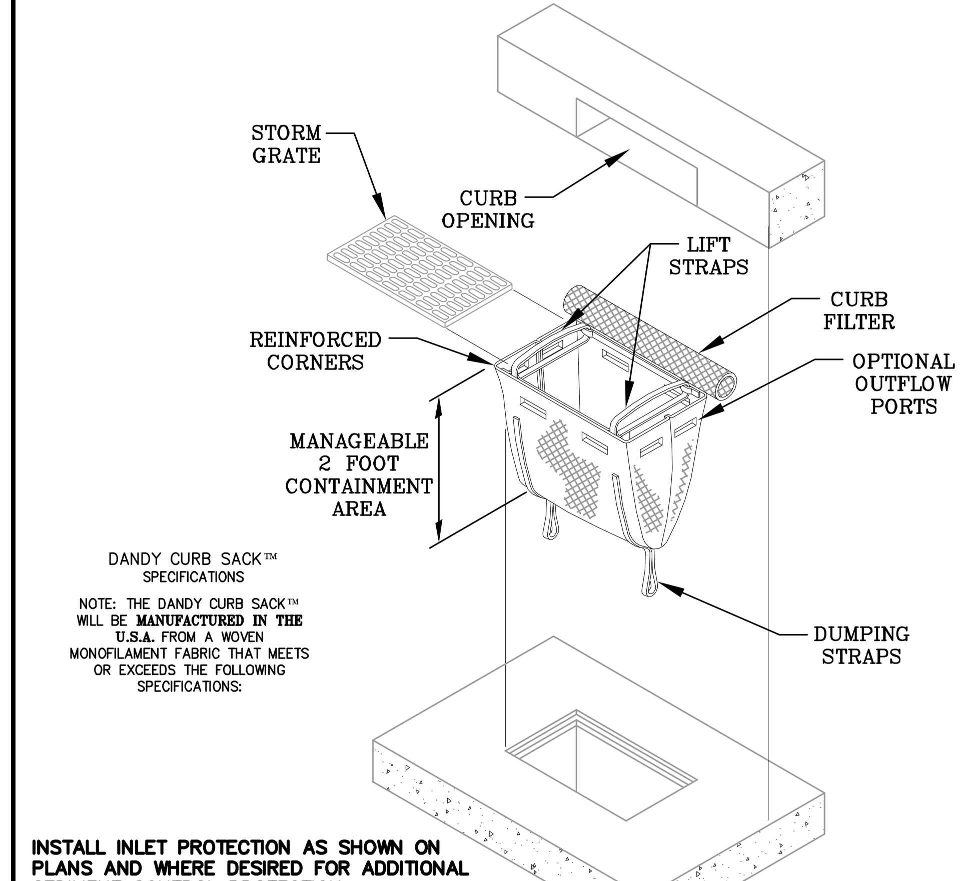
REGULAR FLOW DANDY CURB SACK™ (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	2852 (70)
Permittivity	ASTM D 4491	Sec⁻¹	0.90

HI–FLOW DANDY CURB SACK™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows



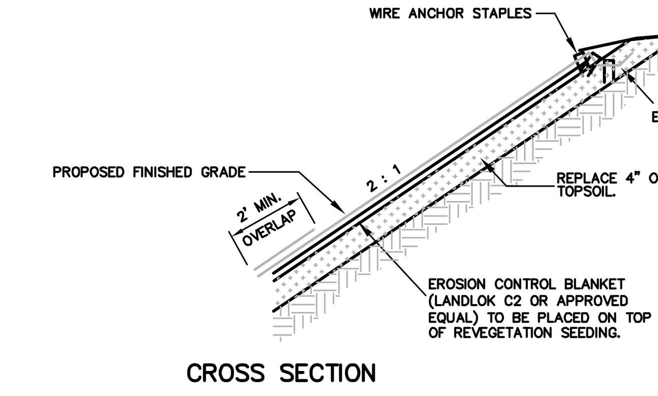
DANDY CURB SACK™ SPECIFICATIONS

NOTE: THE DANDY CURB SACK™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

INSTALL INLET PROTECTION AS SHOWN ON PLANS AND WHERE DESIRED FOR ADDITIONAL SEDIMENT CONTROL PROTECTION.

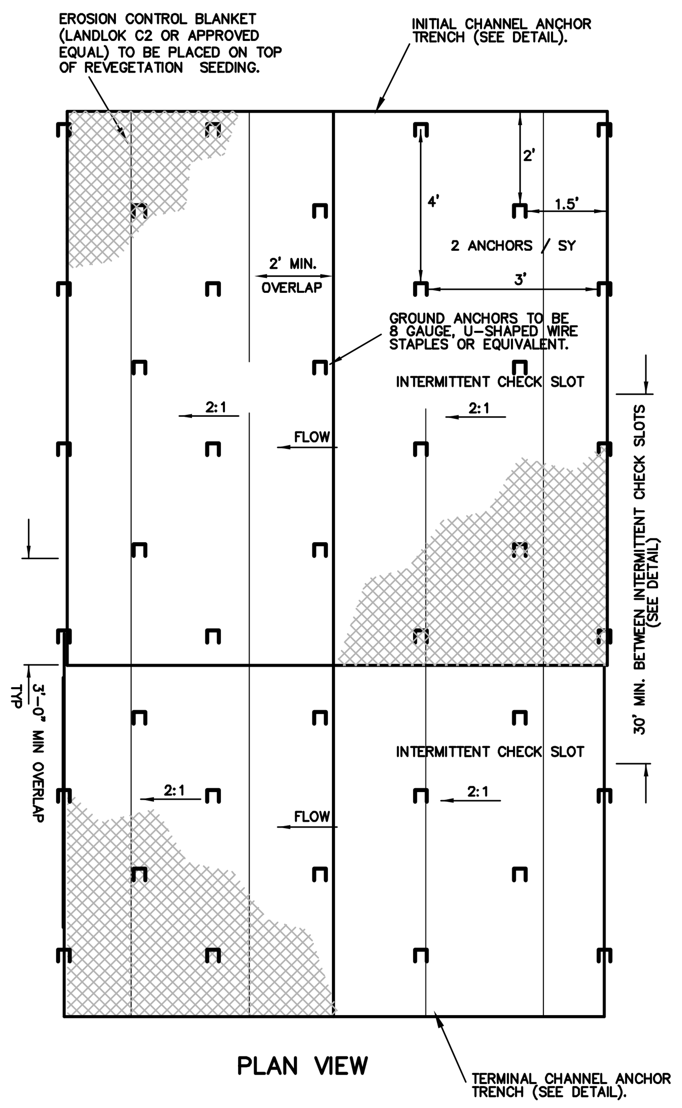
SYMBOL ON PLANS

B CURB SACK INLET PROTECTION

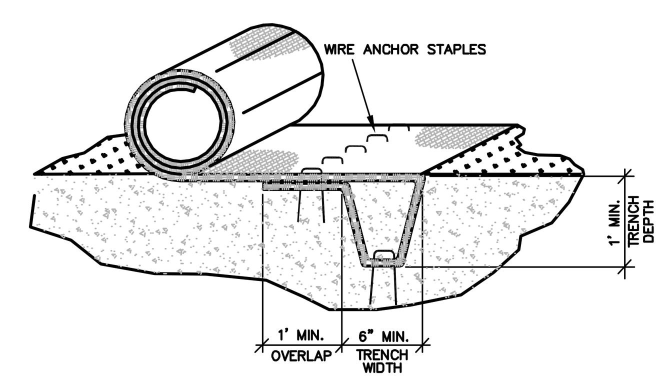


CROSS SECTION

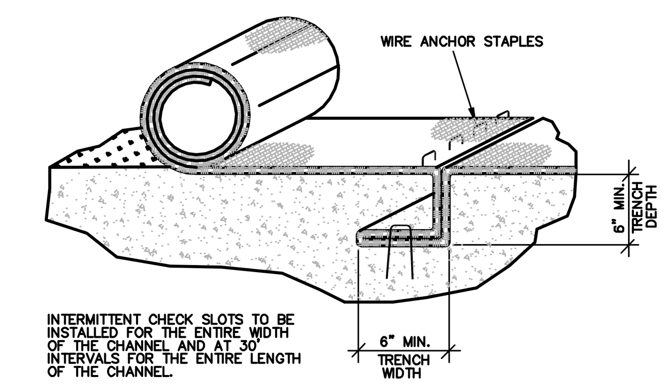
NOTE: CONTRACTOR TO INSTALL TOPSOIL, SEED, MULCH AND FERTILIZER BEFORE INSTALLATION OF EROSION CONTROL BLANKET



PLAN VIEW



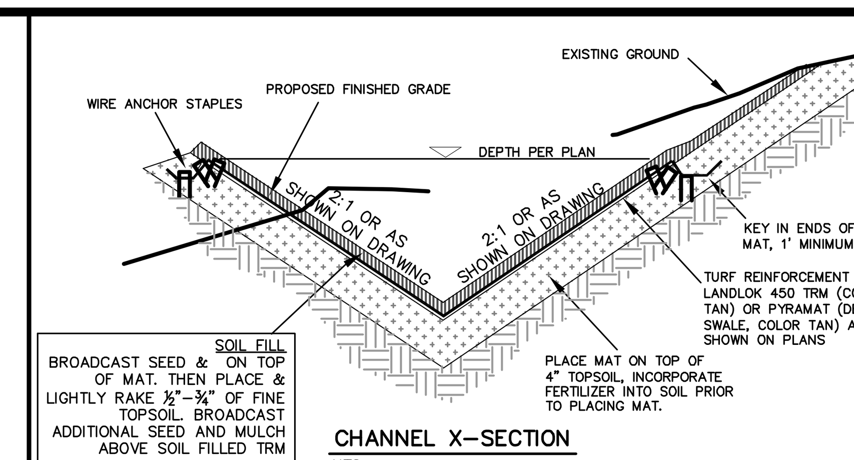
INITIAL CHANNEL ANCHOR TRENCH



INTERMITTENT CHECK SLOT

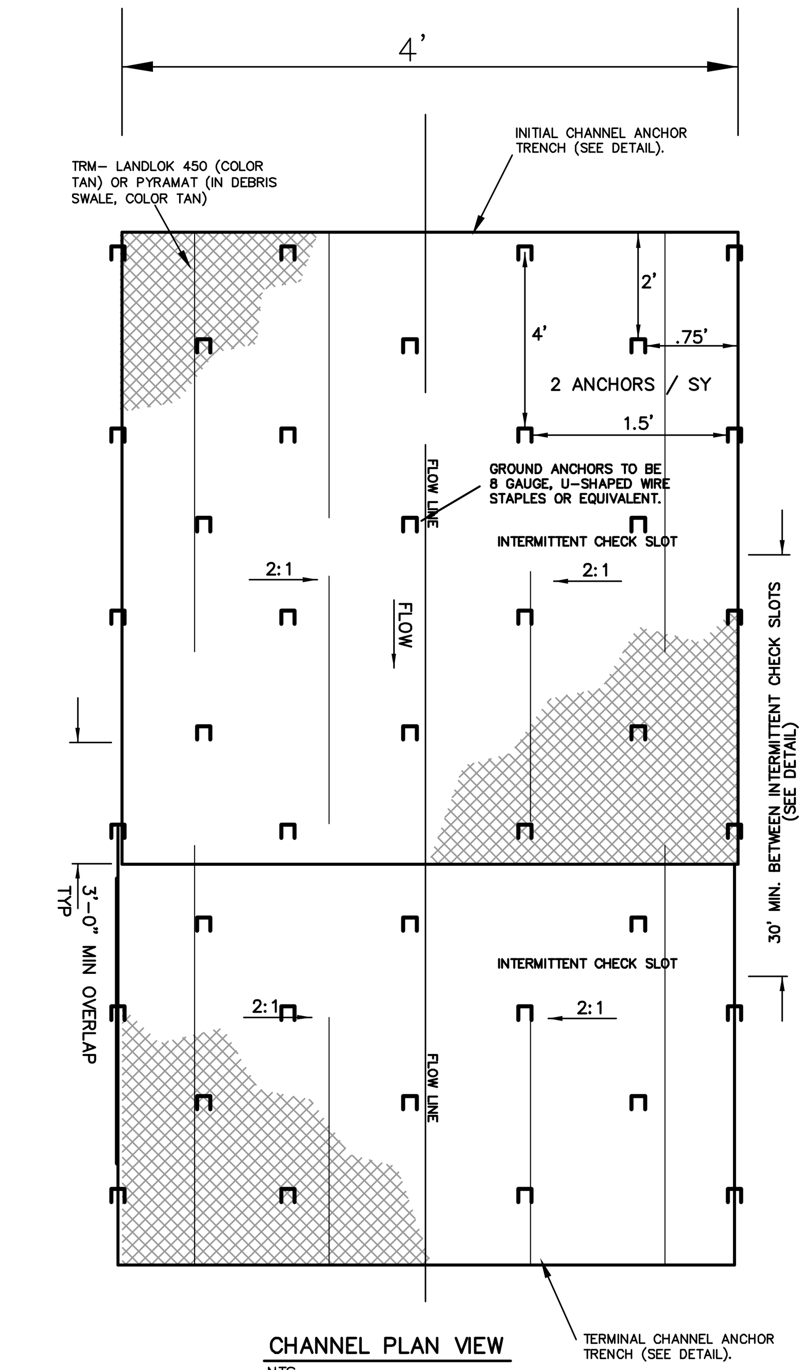
NOTE: CONTRACTOR TO COORDINATE SEEDING WITH REVEGETATION CONTRACTOR PRIOR TO INSTALLATION OF EROSION CONTROL BLANKET.

C EROSION CONTROL BLANKET (SLOPE PROTECTION)



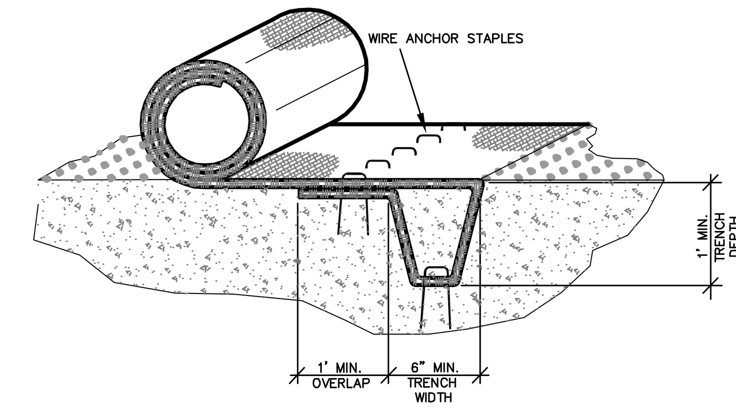
CHANNEL X–SECTION

NTS



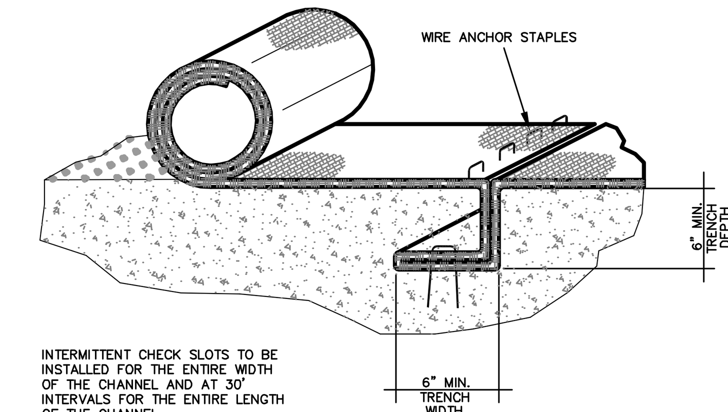
CHANNEL PLAN VIEW

NTS



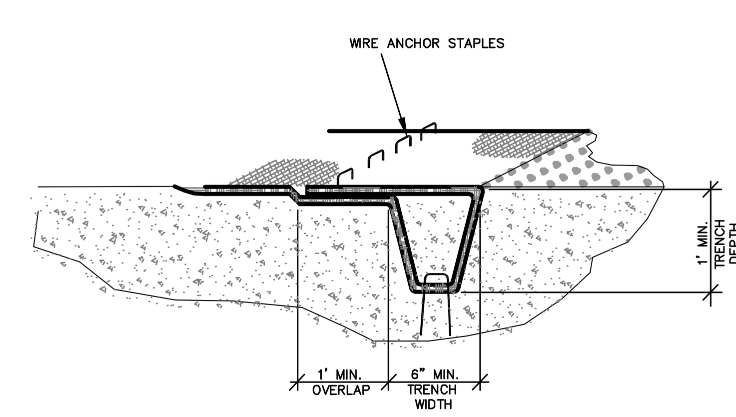
INITIAL CHANNEL ANCHOR TRENCH

NTS



INTERMITTENT CHECK SLOT

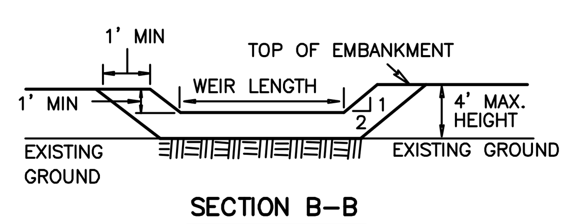
NTS



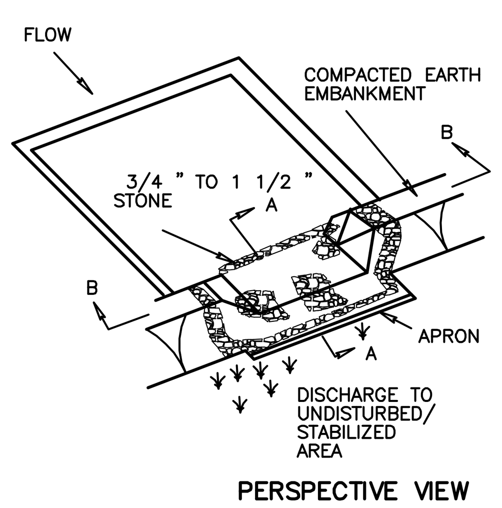
TERMINAL ANCHOR TRENCH

NTS

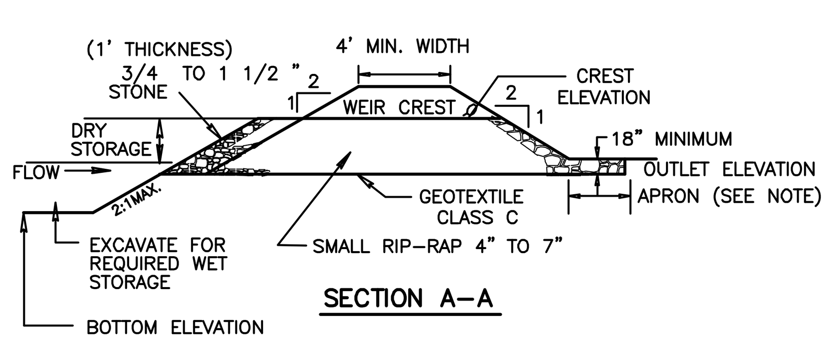
G TURF REINFORCEMENT MAT



SECTION B–B



PERSPECTIVE VIEW



SECTION A–A

CONSTRUCTION SPECIFICATIONS–STONE/RIPRAP OUTLET SEDIMENT TRAP

1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.

2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER–SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. MAXIMUM HEIGHT OF EMBANKMENT SHALL BE 4', MEASURED AT CENTERLINE OF EMBANKMENT.

3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.

4. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF TRAP EMBANKMENT.

5. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME MEASURED FROM TOP OF EXCAVATION.

6. GEOTEXTILE SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE. SECTION OF FABRIC MUST OVERLAP AT LEAST 1' WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.

7. 4" – 7" STONE SHALL BE USED TO CONSTRUCT THE WEIR AND 4" – 12" RIP–RAP SHALL BE USED TO CONSTRUCT THE OUTLET CHANNEL.

8. OUTLET – AN OUTLET SHALL INCLUDE A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION THE DISCHARGE POINT SHALL BE PROVIDED AS NECESSARY.

9. OUTLET CHANNEL MUST HAVE POSITIVE DRAINAGE FROM THE TRAP.

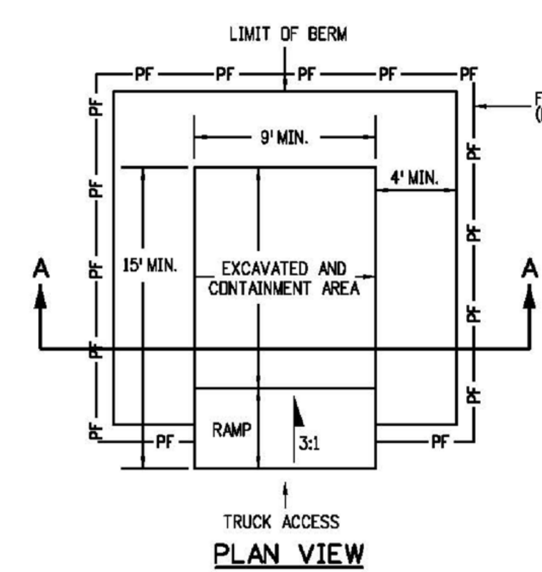
10. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 OF THE WET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

11. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AFTER EACH RAIN AND REPAIRED AS NEEDED.

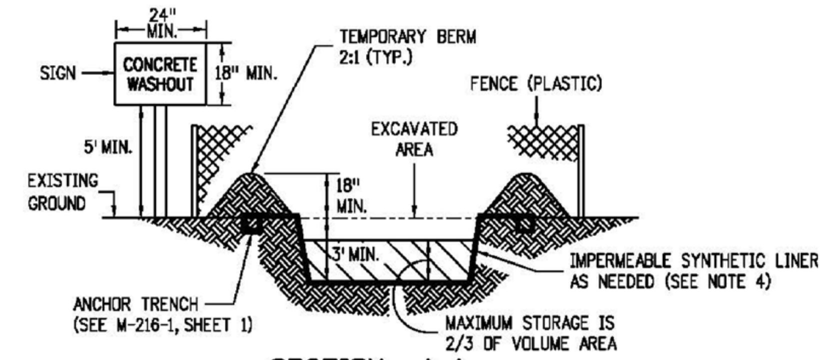
12. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT POLLUTION IS ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.

13. THE STRUCTURE SHALL BE DEWATERED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

D STONE/RIP-RAP OUTLET SEDIMENT TRAP



PLAN VIEW



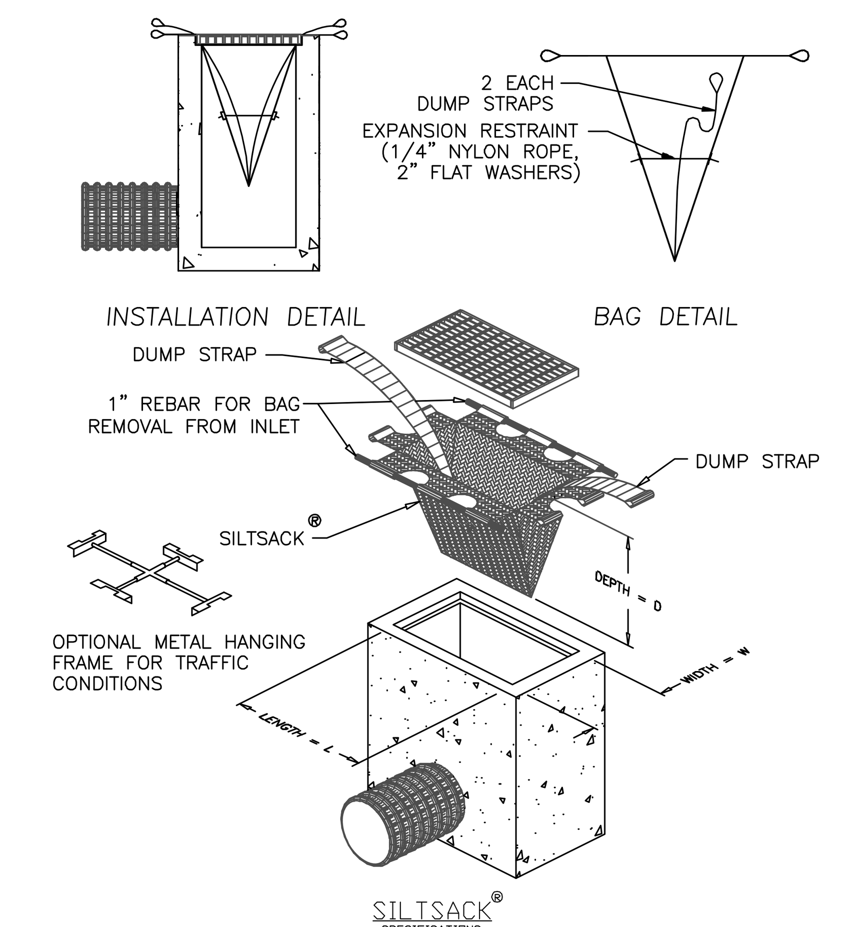
SECTION A–A

NOTES:

1. A FENCE (PLASTIC) CONFORMING TO SECTION 607 SHALL BE INSTALLED AROUND THE CONCRETE WASHOUT AREA, EXCEPT AT THE OPENING.
2. THE CONCRETE WASHOUT SIGN SHALL HAVE LETTERS AT LEAST 3 INCHES HIGH AND CONFORM TO SUBSECTION 630.02.
3. ALL MATERIALS AND LABOR TO COMPLETE THE CONCRETE WASHOUT STRUCTURE SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
4. THE BOTTOM OF EXCAVATION SHALL BE A MINIMUM OF FIVE FEET ABOVE GROUND WATER. IF NOT, IT SHALL BE LINED WITH AN IMPERMEABLE SYNTHETIC LINER THAT IS DESIGNED TO CONTROL SEEPAGE AT A MAXIMUM RATE OF 6 TO 10 CENTIMETERS PER SECOND.
5. THE PAY ITEM NUMBER FOR CONCRETE WASHOUT STRUCTURE (EACH) IS 208-00045.

CONCRETE WASHOUT STRUCTURE

E CONCRETE WASHOUT



SILTSACK®
SPECIFICATIONS

NOTE: THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

HI–FLOW SILTSACK®
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

OIL–ABSORBANT SILTSACK®
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK® CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACK®, WITH A WOVEN PILLOW INSERT.

SYMBOL ON PLANS

INSTALL INLET PROTECTION AS SHOWN ON PLANS AND WHERE DESIRED FOR ADDITIONAL SEDIMENT CONTROL PROTECTION.

F SILT SACK INLET PROTECTION

ALPINE ENGINEERING INC.
34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS, CO 81632 / (970) 926-3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED PROFESSIONAL ENGINEER 39865 (2-19-19)

HAYMEADOW FILING 1

SEDIMENT CONTROL DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C9.10

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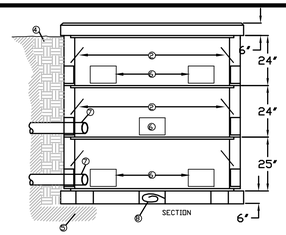
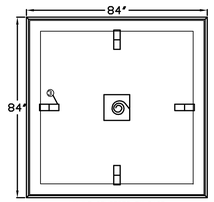
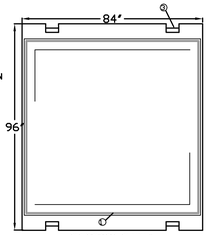


NOTES

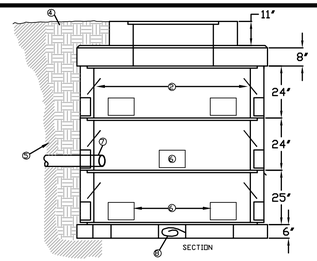
1. TYPICAL SWITCHGEAR OUTLINE
2. LIFTING HANDLES (4) PER VAULT SECTION
3. LIFTING HOLES
4. BACKFILL TO BE WELL COMPACTED
5. SOIL UNDER BASE TO BE UNDISTURBED OR WELL COMPACTED
6. (6) KNOCKOUTS 8"X12" PER VAULT SECTION
7. CONDUIT(S) INSTALLED THROUGH KNOCKOUTS SHALL BE GROUTED
8. BOND #2 COPPER INTO GROUND SYSTEM WITH ROD AND NEUTRAL

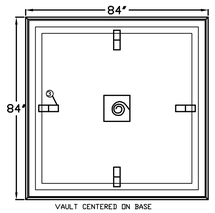


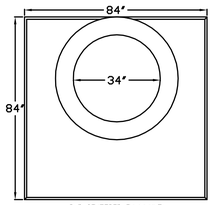


SWITCHGEAR VAULT		
1 - 40200 Large Base		~3,600 lbs.
3 - 40800 Vault, 6'x2'H		~3,000 lbs. Each
1 - 40600 Pad, Switchgear		~1,700 lbs.

HOLY CROSS ENERGY | SWITCHGEAR VAULT SPECIFICATION | APPENDIX UM1-35





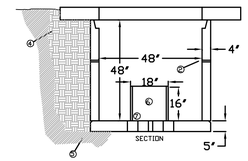


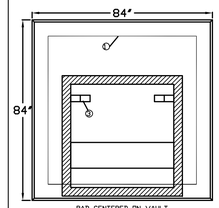
NOTES

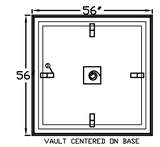
1. TYPICAL MANHOLE OUTLINE
2. LIFTING HANDLES (2) PER VAULT SECTION
3. LIFTING HOLES
4. BACKFILL TO BE WELL COMPACTED
5. SOIL UNDER BASE TO BE UNDISTURBED OR WELL COMPACTED
6. (6) KNOCKOUTS 8"X12" PER VAULT SECTION
7. CONDUIT(S) INSTALLED THROUGH KNOCKOUTS SHALL BE GROUTED
8. BOND #2 COPPER INTO GROUND SYSTEM WITH ROD AND NEUTRAL

Splice Vault (500 MCM or Future UM1-11S)		
1 - 40200 Large Base		~3,600 lbs.
3 - 40800 Vault, 6'x2'H		~3,000 lbs. Each
1 - 40420 Pad		~4,200 lbs.

HOLY CROSS ENERGY | LARGE SPLICE VAULT SPECIFICATION | APPENDIX UM1-35L





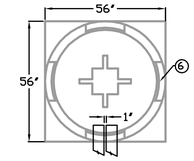


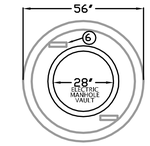
NOTES

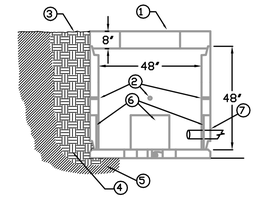
1. TYPICAL TRANSFORMER OUTLINE
2. 3/4" HOLE (TOTAL OF FOUR)
3. LIFTING HOLES
4. BACKFILL TO BE WELL COMPACTED
5. SOIL UNDER BASE TO BE UNDISTURBED OR WELL COMPACTED
6. (4) KNOCKOUTS 16"X18" PER VAULT SECTION
7. CONDUIT(S) INSTALLED THROUGH KNOCKOUTS SHALL BE GROUTED
8. BOND #2 COPPER INTO GROUND SYSTEM WITH ROD AND NEUTRAL

THREE PHASE TRANS. VAULT (300 KVA & Smaller)		
1 - 40150 Small Base		~1,100 lbs.
1 - 40700 Vault, 4'x4'H or 40710 Vault, 4'x3'H		~3,500 lbs.
1 - 40520 Pad, 3Phase		~3,400 lbs.

HOLY CROSS ENERGY | 3 PHASE (300 KVA OR SMALLER) TRANSFORMER VAULT SPECIFICATION | APPENDIX UM1-13S





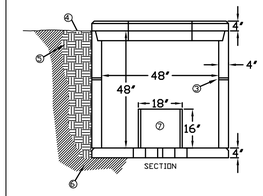


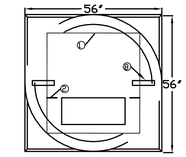
NOTES

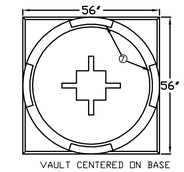
1. 28" MANHOLE
2. 3/4" HOLE (TOTAL OF FOUR)
3. GROUND LEVEL
4. BACKFILL TO BE WELL COMPACTED
5. SOIL UNDER BASE TO BE UNDISTURBED OR WELL COMPACTED
6. FOUR KNOCKOUTS (16"X18")
7. GROUT HOLE IF CONCRETE BOTTOM IS BROKEN OUT
8. FOR CONSUMERS INSTALLING SECONDARIES, CABLE TAILS SHALL BE 60" LONG MEASURED FROM TOP OF PAD

SPLICE VAULT (Round)		
1 - 40150 Small Base		~1,100 lbs.
1 - 40750 Vault, 4'x4'H or 40760 Vault, 4'x3'H		~2,500 lbs.
1 - 40600 Pad		~1,300 lbs.

HOLY CROSS ENERGY | SPLICE VAULT (4' Round) SPECIFICATION | APPENDIX UM30R







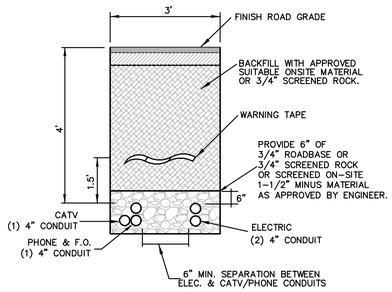
NOTES

1. TYPICAL TRANSFORMER OUTLINE
2. BACK EDGE OF TRANSFORMER OPENING
3. 3/4" HOLE (TOTAL OF FOUR)
4. GROUND LEVEL
5. BACKFILL TO BE WELL COMPACTED
6. SOIL UNDER BASE TO BE UNDISTURBED OR WELL COMPACTED
7. FOUR KNOCKOUTS (16"X18")
8. GROUT HOLE IF CONCRETE BOTTOM IS BROKEN OUT
9. FOR CONSUMERS INSTALLING SECONDARIES, CABLE TAILS SHALL BE 60" LONG MEASURED FROM TOP OF PAD

SINGLE PHASE TRANSFORMER VAULT (Round)		
1 - 40150 Small Base		~1,100 lbs.
1 - 40750 Vault, 4'x4'H or 40760 Vault, 4'x3'H		~2,500 lbs.
1 - 40400 Pad, 1Phase		~1,200 lbs.

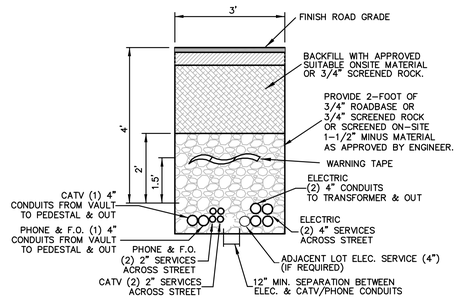
HOLY CROSS ENERGY | 1 PHASE TRANSFORMER VAULT SPECIFICATION | APPENDIX UM1-3

A — ELECTRIC VAULTS



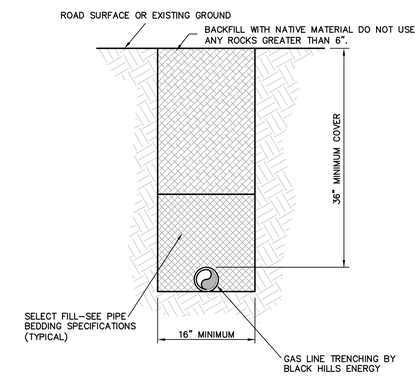
NOTE:
PROVIDE CLAY CHECK DAMS @ 100' INTERVALS IN AREAS OF HIGH GROUND WATER.

TYPICAL JOINT TRENCH



NOTE:
PROVIDE CLAY CHECK DAMS @ 100' INTERVALS IN AREAS OF HIGH GROUND WATER.

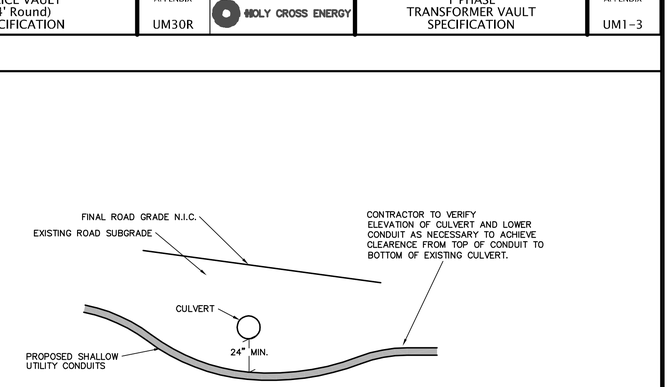
TYPICAL JOINT TRENCH MAINLINE WITH JOINT TRENCH SERVICE LINE SECTION



TYPICAL GAS TRENCH

NOT TO SCALE

B — TRENCHING DETAILS



TYPICAL CULVERT CROSSING

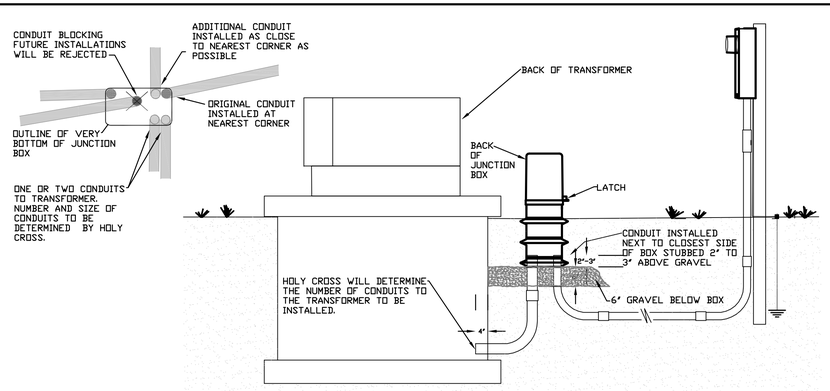
NOT TO SCALE

NOTE:
CONDUITS TO BE INSTALLED UNDER CULVERTS ONLY WHEN THE DISTANCE BETWEEN TOP OF CULVERT AND FINISH SURFACE IS LESS THEN 4.0 FT.

C — CULVERT CROSSING DETAIL

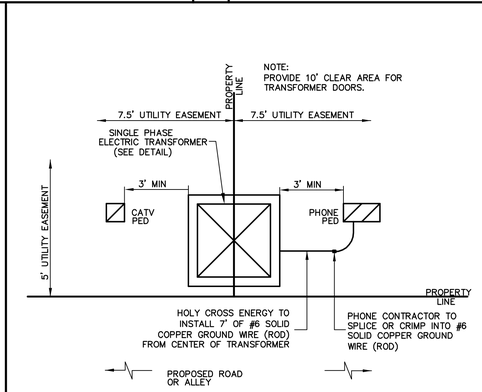
SHALLOW UTILITY NOTES

1. ALL 90° BENDS IN CONDUIT SHALL HAVE A MINIMUM OF A 3' RADIUS. ALL 90° BENDS IN FIBER OPTIC CONDUIT SHALL HAVE A MINIMUM OF A 8' RADIUS.
2. TRENCHES WITHIN ROADWAY PRISMS SHALL BE BACKFILLED AND COMPACTED TO 95% STANDARD PROCTOR. TRENCHES OUTSIDE ROADWAY PRISMS SHALL BE COMPACTED TO 90% STANDARD PROCTOR.
3. WHEN FOUR OR MORE CONDUITS ARE REQUIRED IN THE SAME TRENCH, INCREASE THE TRENCH WIDTH TO PROVIDE 1' SEPARATION BETWEEN ELECTRIC AND TELEPHONE CONDUITS.
4. SELECT FILL DENOTES NATIVE MATERIAL WITH NO ROCKS LARGER THAN 2" IN DIAMETER AND APPROVED BY THE ENGINEER. IF NO SELECT FILL EXISTS ON SITE, CONTRACTOR TO USE ROAD BASE.
5. PROVIDE 2' OF SELECT BACK FILL ABOVE CONDUITS AND LAY WARNING TAPE AS REQUIRED BY THE UTILITY COMPANIES.
6. PROVIDE 10' CLEAR AREA FOR ELECTRIC TRANSFORMER DOORS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE CONSTRUCTION WITH ALL SHALLOW UTILITY COMPANIES AND TO HAVE ALL WORK DONE BY THE CONTRACTOR APPROVED AND ACCEPTED BY EACH RESPECTIVE SHALLOW UTILITY COMPANY.
8. THE CONTRACTOR SHALL INSTALL ALL CONDUITS, VAULTS, PADS, PULL BOXES, PULL STRINGS, AND WATER CONTROL CABLES. THE GAS LINES, TRANSFORMERS, SWITCH GEARS, AND ALL OTHER CABLES TO BE INSTALLED BY THE RESPECTIVE UTILITY COMPANY.
9. THE CONTRACTOR SHALL INSTALL CONDUITS FOR THE ELECTRIC AND PHONE LINES AS SHOWN ON THE PLANS.
10. ALL WORK SHALL COMPLY TO THE INDIVIDUAL SHALLOW UTILITY COMPANY'S RULES AND REGULATIONS.
11. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING UNDERDRAINS DISTURBED BY CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER.
12. THE CONTRACTOR SHALL INSTALL PULL STRINGS IN ALL CONDUITS WITH THE EXCEPTION OF JOINT TRENCH LOT SERVICE STUBS.

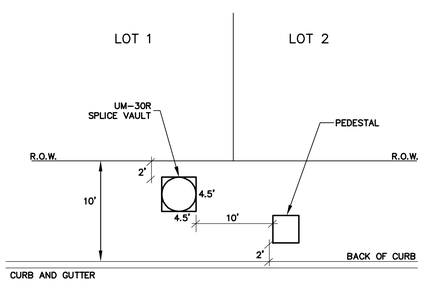


N.T.S.

D — HCE JUNCTION BOX DETAIL



MINIMUM SEPARATION – PLAN



SHALLOW UTILITY VAULT PLACEMENT DETAIL

NOT TO SCALE

E — SHALLOW UTILITY PLACEMENT DETAILS

ALPINE ENGINEERING INC.
345 10 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED PROFESSIONAL ENGINEER MATTHEW C. LEE 11-8-19 39865

HAYMEADOW FILING 1

SHALLOW UTILITY DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED	MW, RL
DRAWN	RF
CHECKED	MCW
JOB NO.	53480.5
DATE	02/20/2019

SHEET C9.11

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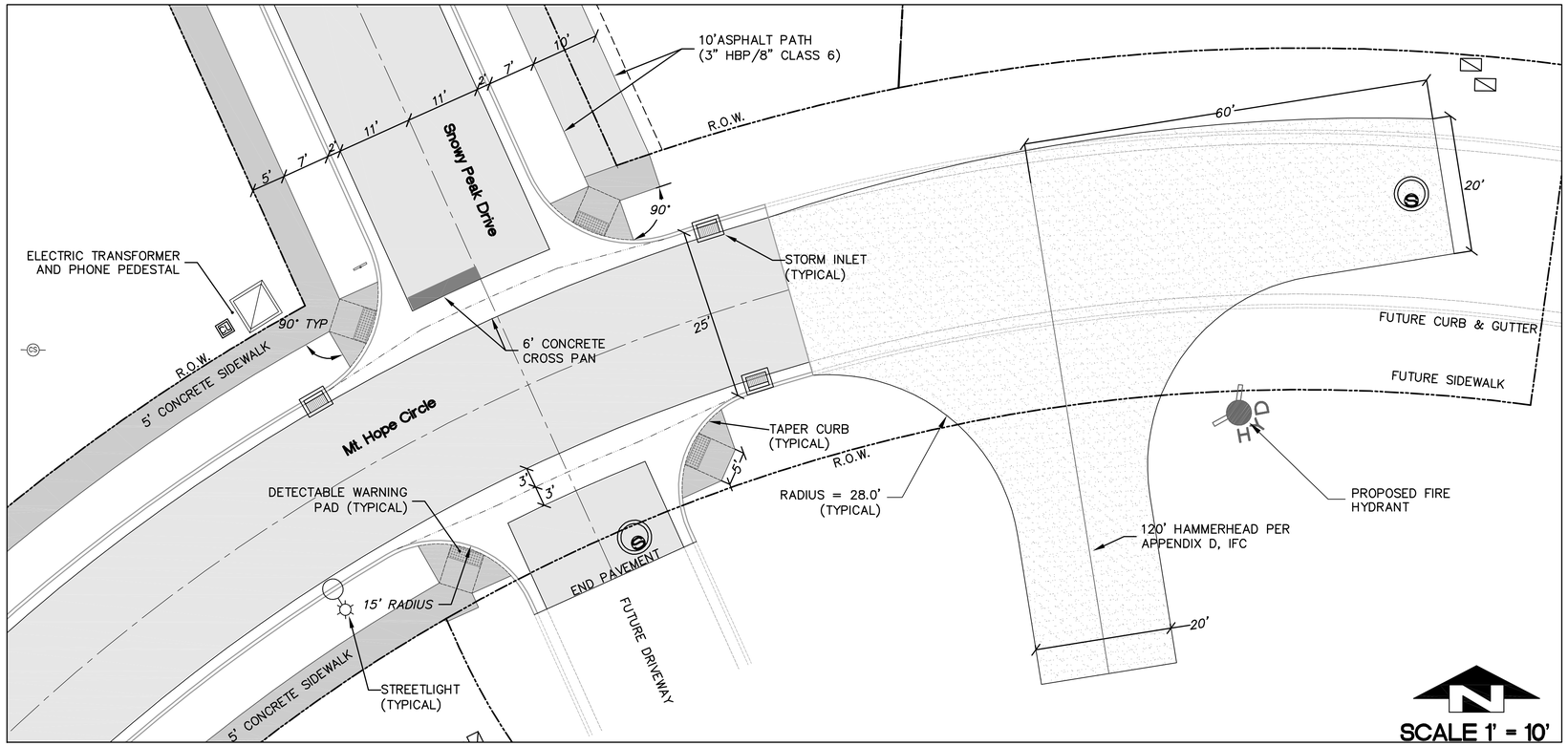
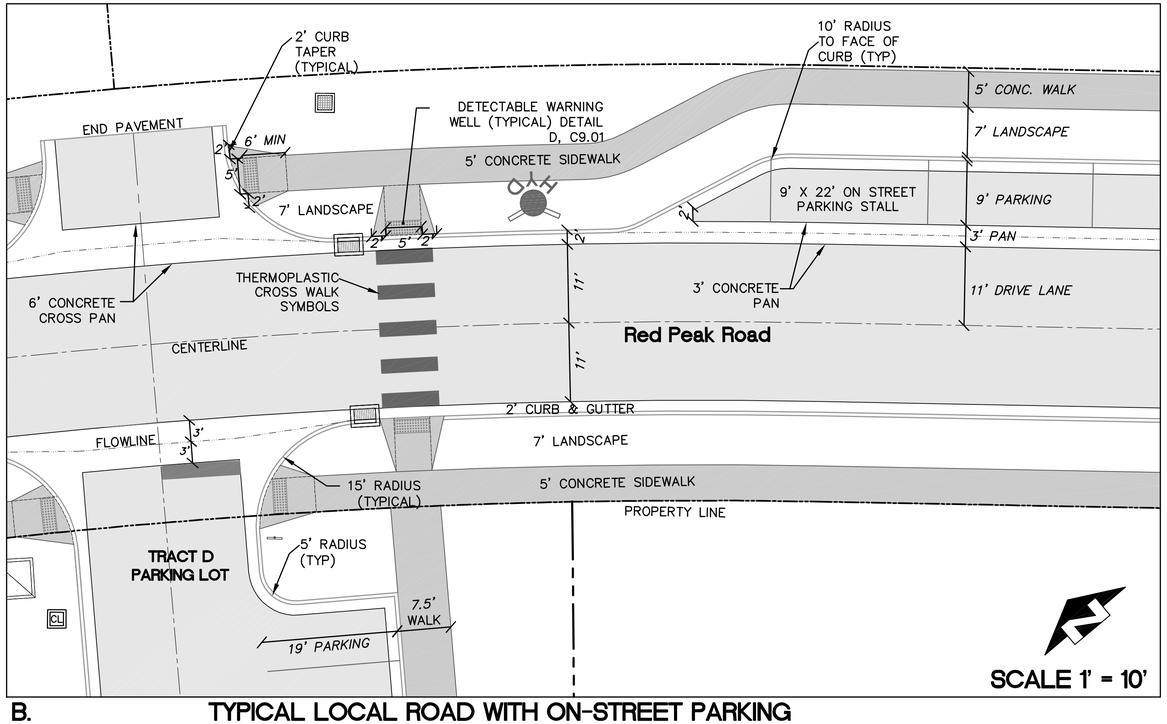
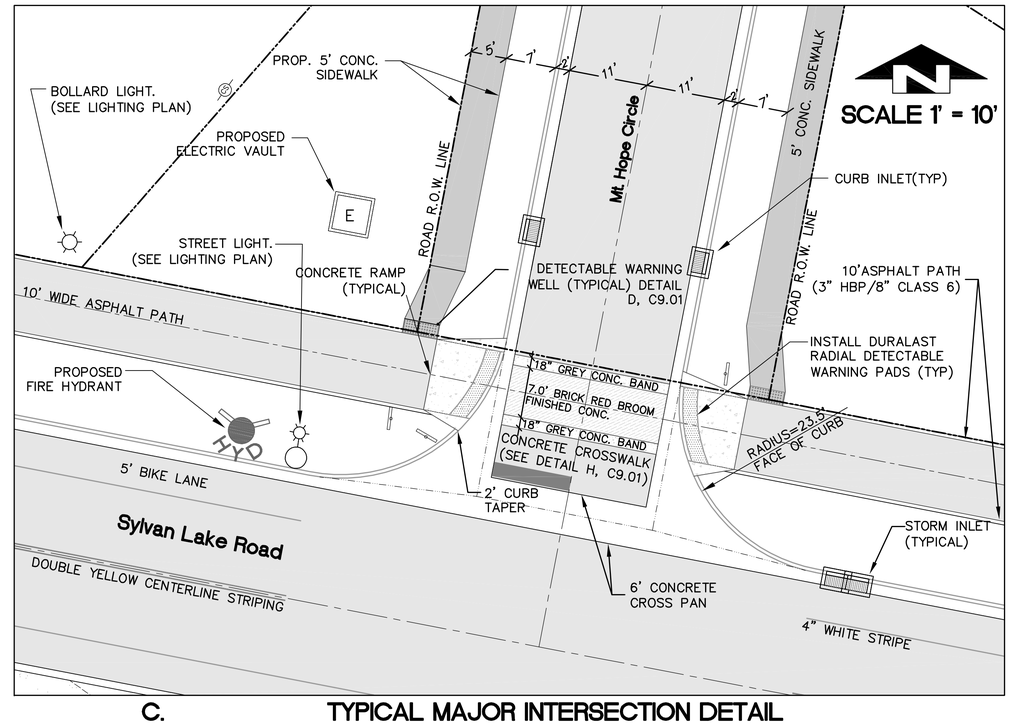


A. TYPICAL INTERSECTION AND TEMPORARY EMERGENCY VEHICLE TURNAROUND

USE CDOT CLASS B OR P CONCRETE MIX DESIGN FOR SIDEWALKS, RAMPS, AND CURB AND GUTTER.



B. TYPICAL LOCAL ROAD WITH ON-STREET PARKING



C. TYPICAL MAJOR INTERSECTION DETAIL

ALPINE ENGINEERING INC.
34510 HWY 6 / UNIT A9 / PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

COLORADO LICENSED
MATTHEW C. WEIER
7-8-19
39865
PROFESSIONAL ENGINEER

HAYMEADOW FILING 1

INTERSECTION DETAILS

NO.	DATE	REVISIONS	BY
	09/14/2018	FOR AGENCY REVIEW	
	02/20/2019	RESPONSE TO COMMENTS	GB

DESIGNED MW, RL
DRAWN RF
CHECKED MCW
JOB NO. 53480.5
DATE 02/20/2019

SHEET
C9.12

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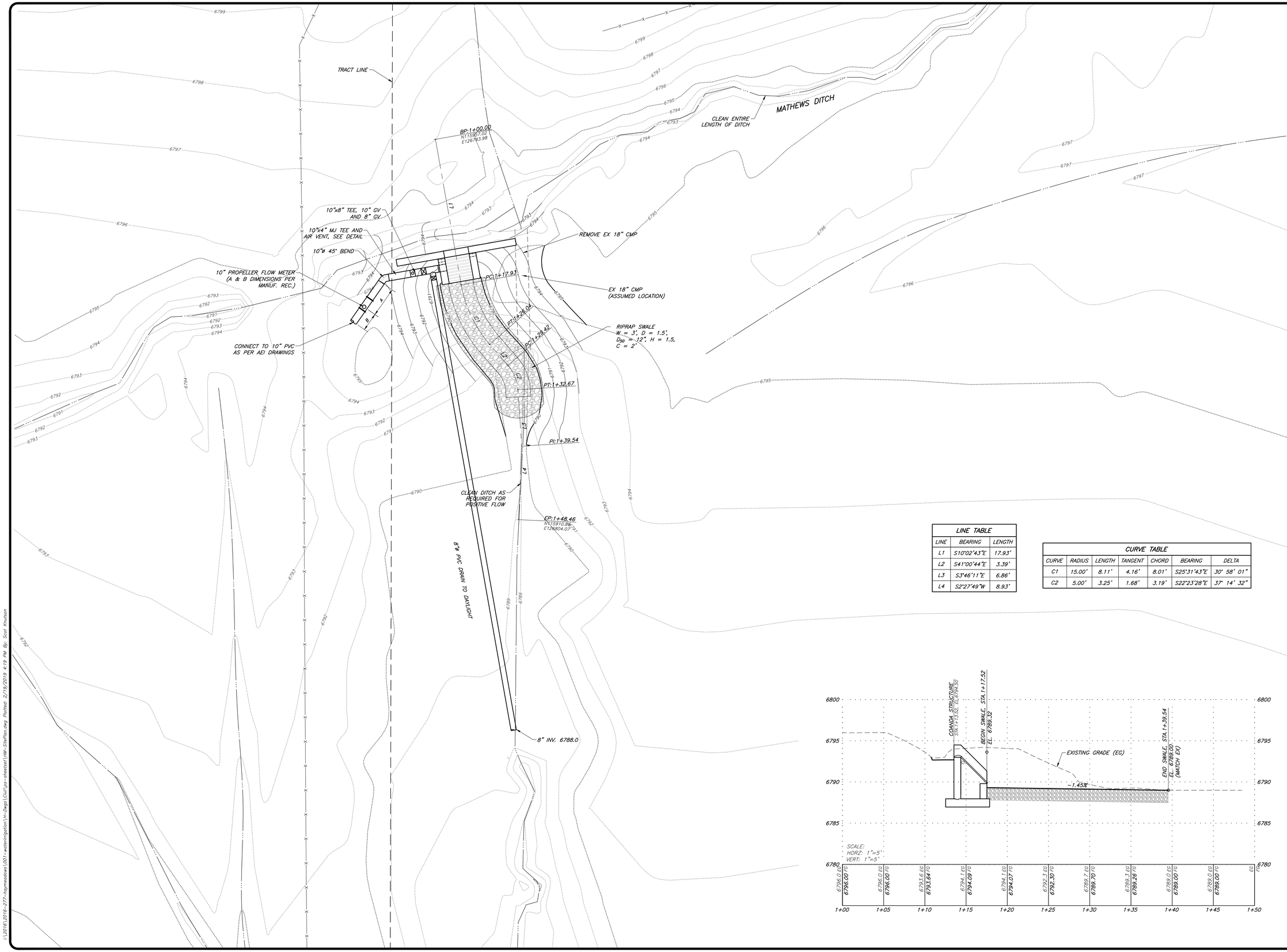

LINE TABLE		
LINE	BEARING	LENGTH
L1	S10°02'43"E	17.93'
L2	S41°00'44"E	3.39'
L3	S3°46'11"E	6.86'
L4	S2°27'49"W	8.93'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	15.00'	8.11'	4.16'	8.01'	S25°31'43"E	30° 58' 01"
C2	5.00'	3.25'	1.68'	3.19'	S22°23'28"E	37° 14' 32"

Graphic Scale
0 2 5 10
In Feet: 1" = 5'

SGM
118 West Sixth Street, Suite 200
Glenwood Springs, CO 81601
970.945.1004 www.sgm-inc.com

Haymeadow, Filing 1
Non-Potable System

#	Revision	Date	By:

Project Milestone: Preliminary Not For Construction

Job No.	2016-277.001
Drawn by:	FB
Date:	9.14.18
QC: DK	PE: DK
File:	HM-SitePlan

Title: Intake Site Plan

Dwg No. NP-1

Of: 2

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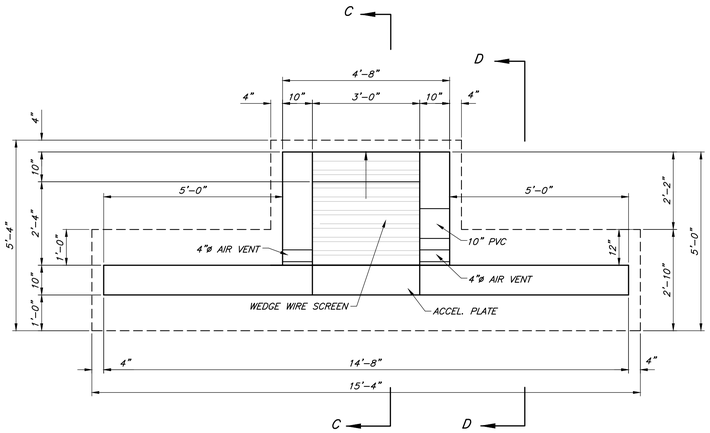
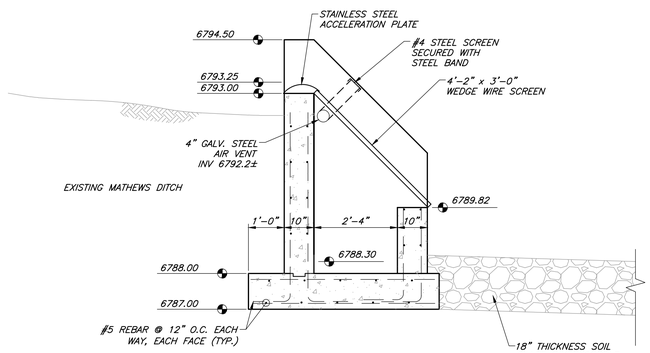
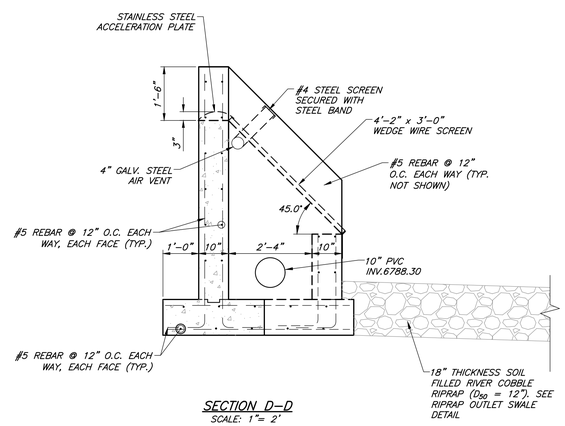


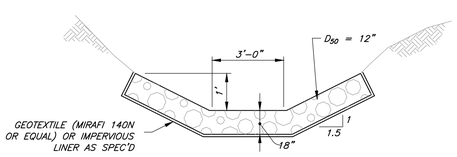
COANDA SCREEN – PLAN VIEW
SCALE: 1"= 2'-0"



SECTION C–C
SCALE: 1"= 2'



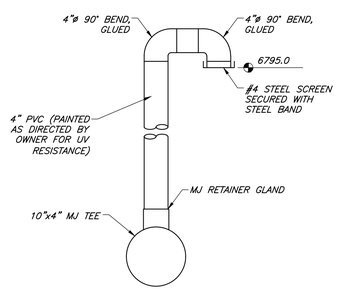
SECTION D–D
SCALE: 1"= 2'



NOTE:

1. GEOTEXTILE TO BE INSTALLED PER EROSION CONTROL NETTING DETAILS.
2. REFER TO SPECS FOR RIPRAP MATERIAL, GRADATION AND INSTALLATION REQ'TS.

RIPRAP SWALE
N.T.S.



AIR VENT
SCALE: 1"= 1'

REINFORCED CONCRETE NOTES:

A. ALL STRUCTURAL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318R–14 AND ACI 350–06. ALL STRUCTURAL CONCRETE CONSTRUCTION WORK SHALL CONFORM TO ACI 301–10 (OR LATEST EDITION) UNLESS NOTED OTHERWISE.

B. CAST IN PLACE CONCRETE SHALL BE MADE WITH TYPE 1/II SULFATE–RESISTANT CEMENT TO MAINTAIN THE FOLLOWING REQUIREMENTS, ADMIXTURES CONTAINING CHLORIDE SALTS SHALL NOT BE USED.

W/C RATIO:	STRENGTH:	ENTRAINED AIR:
0.53	4500 PSI	5%–7%

C. CONCRETE COVERAGE FOR REINFORCING STEEL SHALL PROVIDE THE FOLLOWING:
   a. CONCRETE POURED PERMANENTLY AGAINST EARTH: 3"
   b. CONCRETE POURED IN FORMS (EXPOSED TO WEATHER, FLUID OR EARTH): 2"

D. HOT AND COLD WEATHER CONCRETING PROCEDURES SHALL CONFORM TO THE RECOMMENDATIONS IN THE ACI MANUAL OF CONCRETE PRACTICE.

E. ANY STOP IN CONCRETE WORK MUST BE MADE AT THIRD POINT OF SPAN WITH VERTICAL BULKHEADS AND HORIZONTAL SHEAR KEYS, UNLESS NOTED OTHERWISE. SLABS, FOOTINGS, BEAMS AND WALLS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE.

F. FINISH ALL EXPOSED EDGES WITH A 3/4" CHAMFER.

COANDA SCREEN NOTES:

1. SGM/AEI TO OVERSEE ALL ASPECTS OF CONSTRUCTION..
2. TILTED WEDGE–WIRE SCREEN TO BE 1.0 MM BARS WITH 0.5 MM OPENINGS. SUPPORT BARS TO BE 1/8" BY 1" ON 2" CENTERS OR AS APPROVED BY SGM.
3. MANUFACTURER TO SUPPLY ALL ANCILLARY MATERIALS INCLUDING SUPPORT BARS, FRAME, ACCELERATION PLATE, TOE PLATE, FASTENERS, ANCHORS, ETC.
4. ALL MATERIALS TO BE STAINLESS STEEL, TYPE 304.
5. SCREEN SHALL BE DESIGNED TO CONTINUALLY PASS 1000 GPM.
6. MANUFACTURERS TO HAVE SIGNIFICANT EXPERIENCE ACCEPTABLE TO SGM AND ARE TO PROVIDE ONE (1) DAY OF FIELD SUPPORT.
7. ACCEPTABLE MANUFACTURERS INCLUDE HYDROSCREEN CO., LLC (CONTACT: BOB WEIR (800)567–4916 , RKWEIR@AOL.COM) OR AS APPROVED BY SGM

NON–POTABLE IRRIGATION SYSTEM NOTES:

1. NON–POTABLE IRRIGATION SYSTEM TO BE CONSTRUCTED AND PRESSURE TESTED IN GENERAL CONFORMANCE WITH TOWN OF EAGLE POTABLE WATER STANDARDS AS DESCRIBED IN THE SPECIFICATIONS AND STANDARD DETAILS CONTAINED IN THE TOWN'S PUBLIC WORKS MANUAL, JANUARY 2018 ACCEPT AS MODIFIED HEREIN.
2. DISINFECTION NOT REQUIRED.
3. PIPE BEDDING TO BE CLASS 6 AGGREGATE BASE COURSE COMPACTED TO 95% MODIFIED PROCTOR MAX DENSITY. REFER TO TRENCH DETAIL A2.
4. MINIMUM DEPTH OF COVER TO BE 3'.
5. TEST PRESSURE SHALL BE 120 PSI AT LOWEST POINT IN SYSTEM.
6. THRUST BLOCKS TO CONFORM TO STANDARD DETAIL B21.
7. ALL FITTINGS, TEES AND VALVES TO HAVE MECHANICAL RESTRAINTS IN ADDITION TO THRUST BLOCKS.
8. IRRIGATION MAINS 4" – 10" TO BE CL 200 IPS RING–TITE PVC OR EQUAL
9. FITTING AND TEES TO BE PUSH–ON OR MJ DUCTILE IRON MEETING OR EXCEEDING:
   MATERIALS: ASTM A–536
   JOINTS: AWWA C–111
   GASKETS: ASTM F–477
   COATING: AWWA C–153
   ACCEPTABLE MANUFACTURER HARCO (HTTP://WWW.HARCOFITTINGS.COM/PRODUCTS/DI/UTILITY/FITTINGS/) OR EQUAL .
10. MECHANICAL RESTRAINTS BY HARCO, EBAA IRON OR EQUAL AND PER APPROVED SUBMITTALS.
11. ISOLATION AND DRAIN GATE VALVES AS MANUFACTURED BY MUELLER (MJXMJ 2361–23) OR EQUAL.
12. CAST IRON VALVE BOXES AS MANUFACTURED BY TYLER UNION (HTTP://WWW.TYLERUNION.COM/PRODUCTS/CATALOG/MUNICIPAL–CASTINGS/) OR EQUAL.
13. DUCTILE IRON SERVICE SADDLE (1" TO 2") AS MANUFACTURED BY HARCO (HTTP://WWW.HARCOFITTINGS.COM/PRODUCTS/DI/IRRIGATION/SADDLES/SADDLES_002.HTM) OR EQUAL
14. SERVICE LINES TO BE AWWA C–901 PURE–CORE OR EQUAL.
15. 1" BALL CURB AND 2" GATE SERVICE VALVES TO BE AS MANUFACTURED BY MUELLER OR FLOMATIC – 1" BALL VLV PVC UTILITY FPT 1" (25) GATE VLV FPT FLOMATIC 2" 8560NPT OR EQUAL.
16. CAST IRON CURB BOX AS MANUFACTURED BY MUELLER OR TYLER UNION, OR EQUAL.
17. CONTRACTOR TO PROVIDE COMPLETE NON–POTABLE IRRIGATION MATERIALS SUBMITTAL FOR SGM APPROVAL PRIOR TO CONSTRUCTION.
18. ALL TRENCHING AND BACKFILL TO BE IN CONFORMANCE WITH PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
19. FLOW METER (AFTER COANDA BOX) SHALL BE A MCCOMETER MCPROPELLER W/ FS100 FLOW STRAIGHTENER, 36"(CONTRACTOR VERIFY) REGISTER EXTENSION, PLACED INSIDE A METER BOX FLUSH WITH FINISHED GRADE ELEVATION

Graphic Scale
0 ## ## ##
In Feet: 1" = ##'

SGM
118 West Sixth Street, Suite 200
Glenwood Springs, CO 81601
970.945.1004 www.sgm-inc.com

Haymeadow, Filing 1
Non-Potable System

#	Revision	Date	By:
1			

Project Milestone: Preliminary Not For Construction

Job No.	2016-277.001
Drawn by:	FB
Date:	9.14.18
QC: DK	PE: DK
File:	HM-Details

Title: Coanda and Irrigation Details

Dwg No. NP-2

Of : 2

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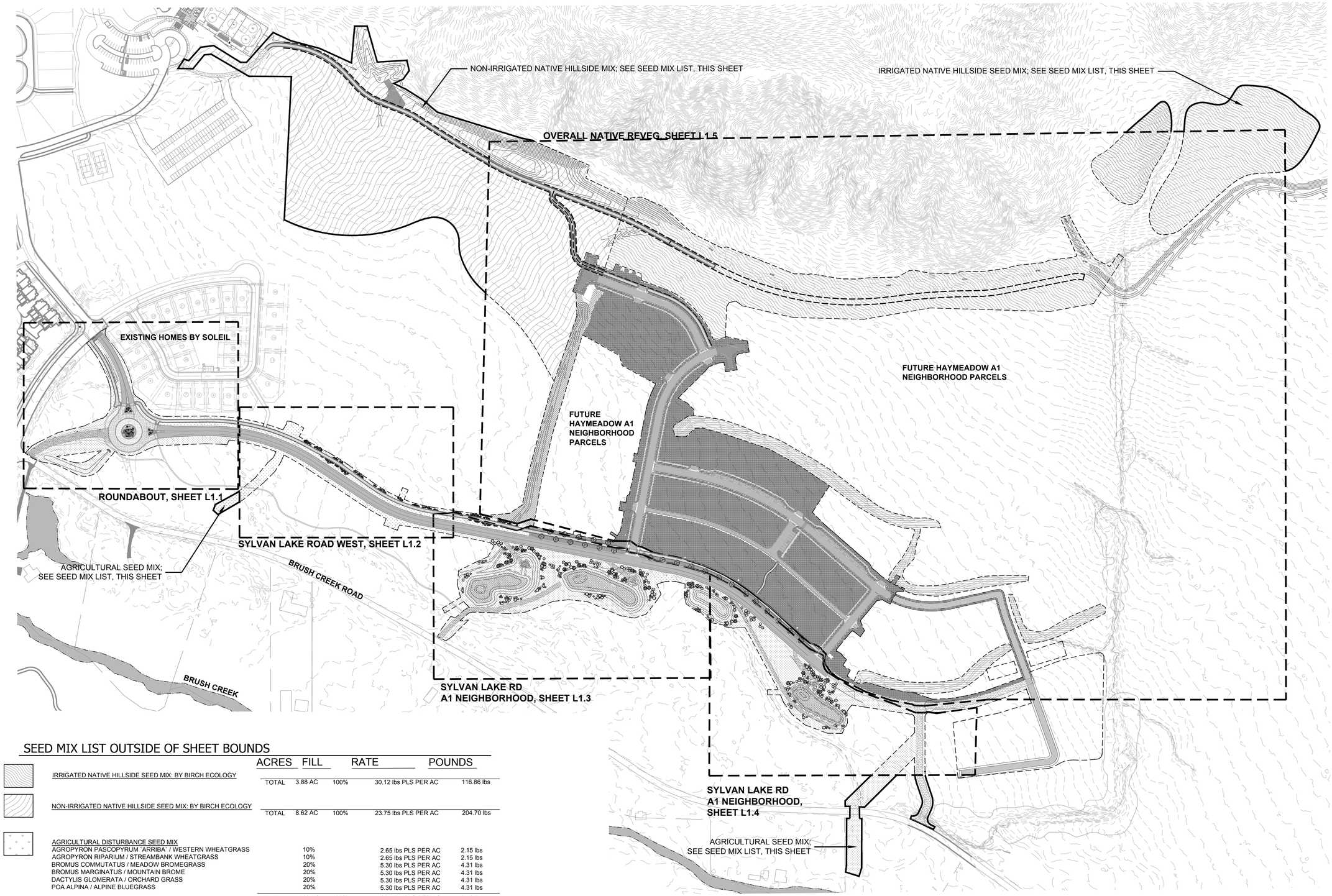

SEED MIX LIST OUTSIDE OF SHEET BOUNDS

	ACRES	FILL	RATE	POUNDS
IRRIGATED NATIVE HILLSIDE SEED MIX: BY BIRCH ECOLOGY				
TOTAL	3.88 AC	100%	30.12 lbs PLS PER AC	116.86 lbs
NON-IRRIGATED NATIVE HILLSIDE SEED MIX: BY BIRCH ECOLOGY				
TOTAL	8.62 AC	100%	23.75 lbs PLS PER AC	204.70 lbs
AGRICULTURAL DISTURBANCE SEED MIX				
AGROPYRON PASCOPYRUM `ARRIBA` / WESTERN WHEATGRASS		10%	2.65 lbs PLS PER AC	2.15 lbs
AGROPYRON RIPARIUM / STREAMBANK WHEATGRASS		10%	2.65 lbs PLS PER AC	2.15 lbs
BROMUS COMMUTATUS / MEADOW BROMEGRASS		20%	5.30 lbs PLS PER AC	4.31 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		20%	5.30 lbs PLS PER AC	4.31 lbs
DACTYLIS GLOMERATA / ORCHARD GRASS		20%	5.30 lbs PLS PER AC	4.31 lbs
POA ALPINA / ALPINE BLUEGRASS		20%	5.30 lbs PLS PER AC	4.31 lbs
TOTAL	.133 AC	100%	26.5 lbs PLS PER AC	3.52 lbs

NOTES:

1. **REFER TO SHEETS AS NOTED ON L1.0 FOR PLANTING ENLARGMENTS.**
2. **REFER TO SHEETS L1.1-L1.6 FOR TYPICAL LANDSCAPE AND PLANTING NOTES.**
3. **SEED QUANTITIES PROVIDED HERE ARE SPECIFIC TO THOSE AREAS NOT SHOWN ON SHEETS L1.1-L1.5.**
4. **TOTAL QUANTITY COUNTS FOR ENTIRE PROJECT AREA PROVIDED ON L1.6.**

File Path: X:\Project's\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Reference Plan.dwg
Plot Date/Time: February 15, 2019 9:54 am

DHM DESIGN
LANDSCAPE ARCHITECTURE
LAND PLANNING
URBAN DESIGN

311 Main Street, Suite 102
Carbondale CO. 81623 | 970.963.6520

REUSE OF DOCUMENT

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BIRCH ECOLOGY

Haymeadow Filing 1

Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK 172 PROFESSIONAL LANDSCAPE ARCHITECT STATE OF COLORADO

SHEET TITLE:

OVERALL PLANTING PLAN

SHEET NUMBER:

L1.0

0' 75' 150' 300'

SCALE: 1"=150'

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- PROPOSED CONTOURS; PER CIVIL
- 6650 EXISTING CONTOURS
- PROPOSED ASPHALT ROADS; PER CIVIL
- PROPOSED GRAVEL ROADS; PER CIVIL
- PROPOSED ROCK MULCH

PLANT LIST

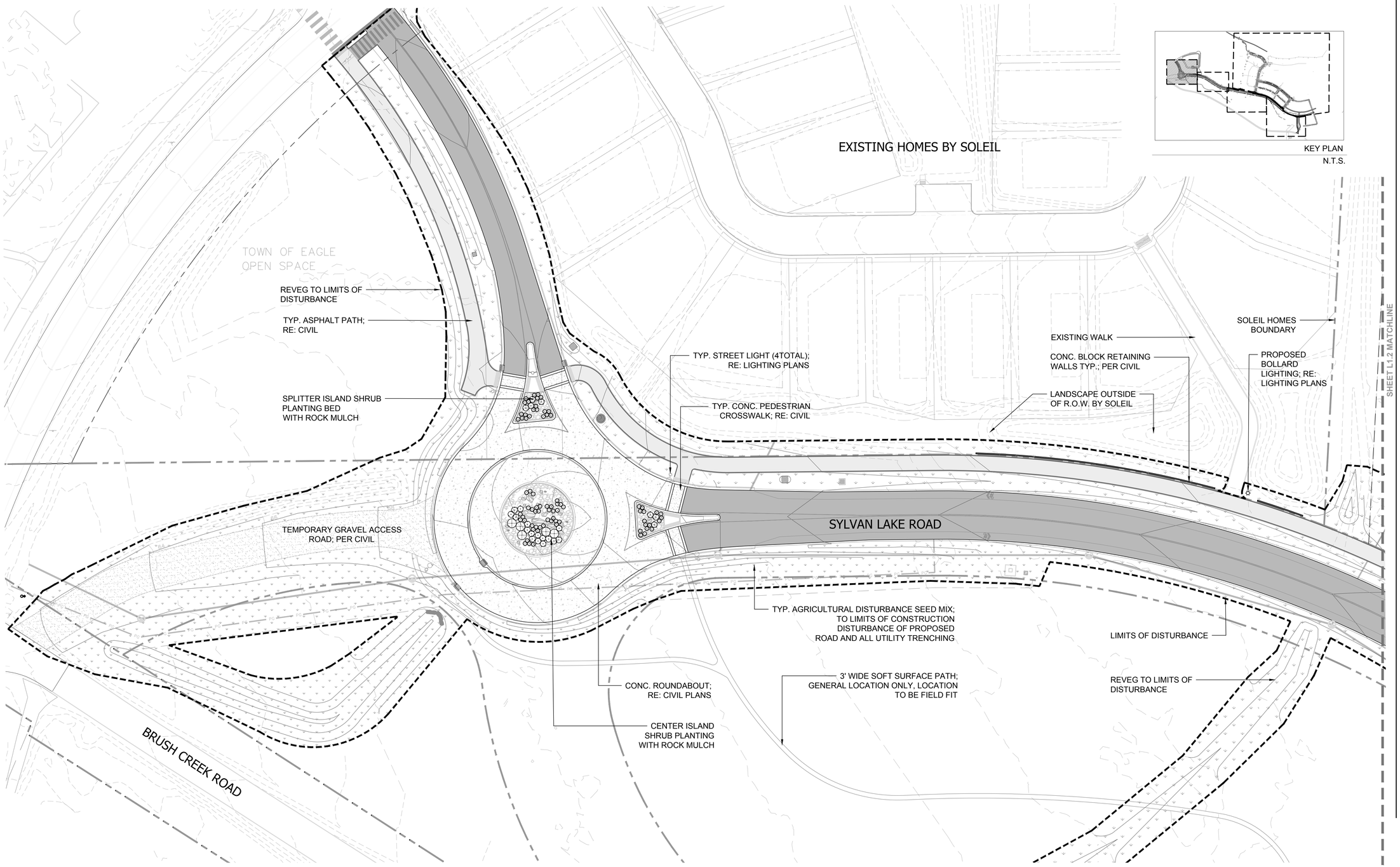
SHRUBS	CODE	BOTANICAL NAME / COMMON NAME	SIZE	QTY
	CC	CARYOPTERIS X CLANDONENSIS `BLUE MIST` / BLUE MIST SHRUB	5 GAL	13
	CF	CHAMAEBATIARIA LATIFOLIA / FERNBUSH	5 GAL	10
	RG	RHUS AROMATICA `GRO-LOW` / GRO-LOW FRAGRANT SUMAC	5 GAL	75
	VA	VIBURNUM TRILOBUM / AMERICAN CRANBERRYBUSH	5 GAL	5

SEED MIX LIST

AGRICULTURAL DISTURBANCE SEED MIX	ACRES	FILL	RATE	POUNDS
AGROPYRON PASCOPYRUM `ARRIBA` / WESTERN WHEATGRASS		10%	2.65 lbs PLS PER AC	1.94 lbs
AGROPYRON RIPARIUM / STREAMBANK WHEATGRASS		10%	2.65 lbs PLS PER AC	1.94 lbs
BROMUS COMMUTATUS / MEADOW BROMEGRASS		20%	5.30 lbs PLS PER AC	3.88 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		20%	5.30 lbs PLS PER AC	3.88 lbs
DACTYLIS GLOMERATA / ORCHARD GRASS		20%	5.30 lbs PLS PER AC	3.88 lbs
POA ALPINA / ALPINE BLUEGRASS		20%	5.30 lbs PLS PER AC	3.88 lbs
TOTAL	1.15 AC	100%	26.5 lbs PLS PER AC	30.48 lbs

NOTES:

1. REFER TO CIVIL DRAWING SET FOR EXTENTS OF ALL PROPOSED SITE GRADING AND PROPOSED UTILITIES.
2. ALL DISTURBED AREAS TO BE RE-VEGETATED WITH SPECIFIED SEED MIXES. REFER TO PLANS FOR THE SPECIFIC LOCATIONS AND DISTRIBUTION OF SEEDING. AREAS OF SEEDING ON PLANS ARE APPROXIMATE AND ARE TO BE ADJUSTED PER ACTUAL LIMITS OF DISTURBANCE IN FIELD. REFER TO CIVIL PLANS FOR UTILITY LOCATIONS PER FILING 1.
3. LAYOUT FOR ROUNDABOUT PLANTING BED IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL PLANTING AND BOULDER LAYOUT TO BE FIELD LOCATED.
4. PLANT SPECIES AND QUANTITIES ARE SPECIFIC TO THIS SHEET. REFER TO SHEET L1.6 FOR FULL LIST OF PLANTS AND SEED MIX SPECIES PROVIDED BY DHM DESIGN AND BIRCH ECOLOGY.



KEY PLAN
N.T.S.

DHM DESIGN
LANDSCAPE ARCHITECTURE
LAND PLANNING
URBAN DESIGN

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BIRCH ECOLOGY

Haymeadow Filing 1

Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK 172 — 2/15/2019 — Chief of Water — STATE OF COLORADO — DESIGNED LANDSCAPE ARCHITECT

SHEET TITLE:

SYLVAN LAKE RD ROUNDABOUT

SHEET NUMBER:

L1.1

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

File Path: X:\Projects\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Planting.dwg
Plot Date/Time: February 15, 2019 - 4:56 pm

PLANT LIST

DECIDUOUS TREES	CODE	BOTANICAL / COMMON NAME	CONT	QTY
	AB	ACER NEGUNDO 'SENSATION' SENSATION BOX ELDER MAPLE	3" CAL B&B	7
	SM2	AMELANCHIER ALNIFOLIA SASKATOON SERVICEBERRY	5 GAL	62
	SM	AMELANCHIER ALNIFOLIA 'REGENT' SASKATOON SERVICEBERRY	6' CL B&B	31

LEGEND

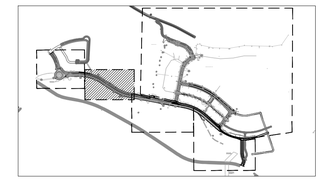
- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- PROPOSED CONTOURS; PER CIVIL
- 6650 EXISTING CONTOURS
- PROPOSED ASPHALT ROADS; PER CIVIL
- PROPOSED GRAVEL ROADS; PER CIVIL

NOTES:

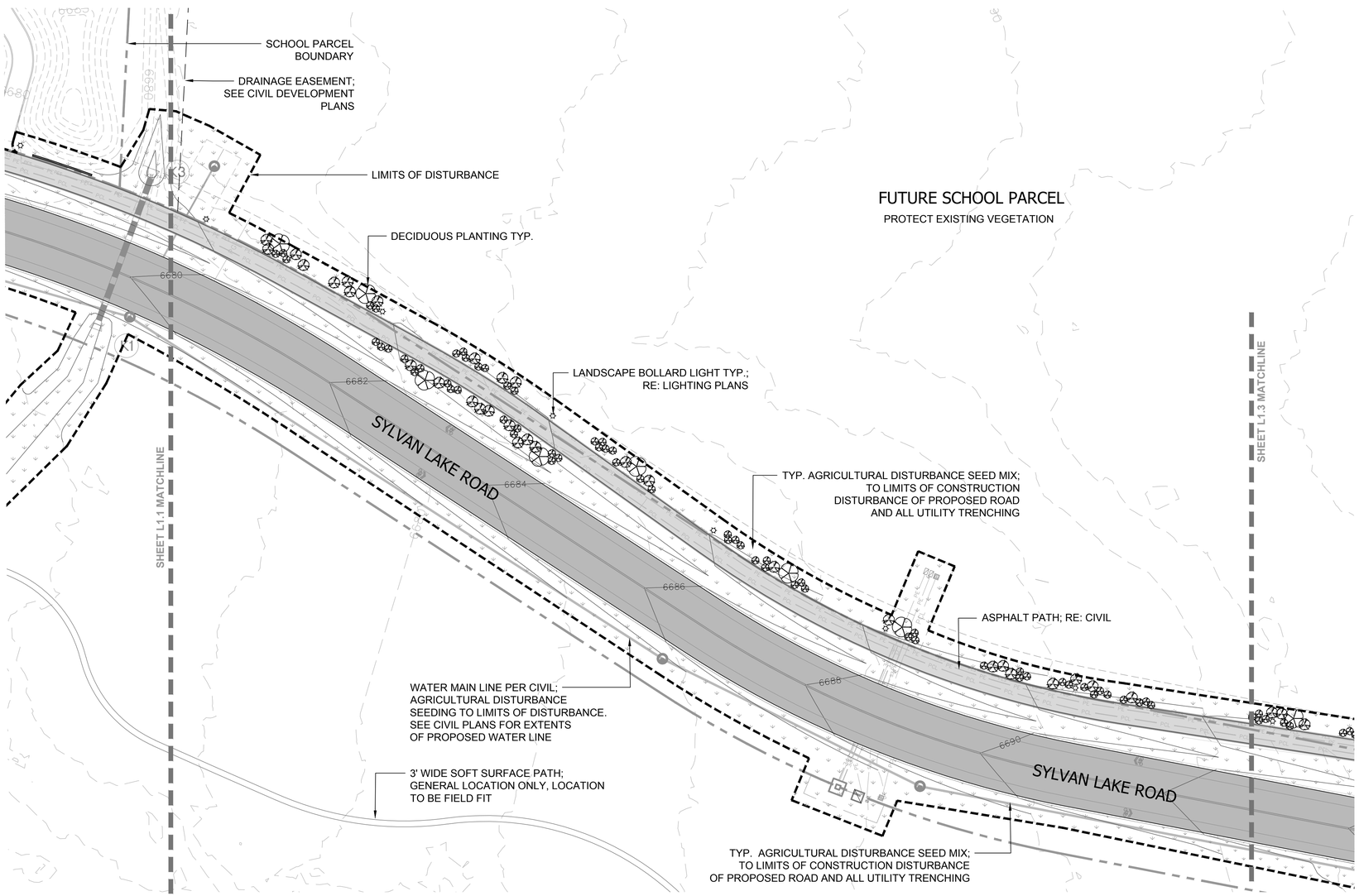
1. REFER TO CIVIL DRAWING SET FOR EXTENTS OF ALL PROPOSED SITE GRADING AND PROPOSED UTILITIES.
2. ALL DISTURBED AREAS TO BE RE-VEGETATED WITH SPECIFIED SEED MIXES. REFER TO PLANS FOR THE SPECIFIC LOCATIONS AND DISTRIBUTION OF SEEDING. AREAS OF SEEDING ON PLANS ARE APPROXIMATE AND ARE TO BE ADJUSTED PER ACTUAL LIMITS OF DISTURBANCE IN FIELD. REFER TO CIVIL PLANS FOR UTILITY LOCATIONS PER FILING 1.
3. PLANT SPECIES AND QUANTITIES ARE SPECIFIC TO THIS SHEET. REFER TO SHEET L1.6 FOR FULL LIST OF PLANTS AND SEED MIX SPECIES PROVIDED BY DHM DESIGN AND BIRCH ECOLOGY.

SEED MIX LIST

AGRICULTURAL DISTURBANCE SEED MIX	ACRES	FILL	RATE	POUNDS
AGROPYRON PASCOPYRUM 'ARRIBA' / WESTERN WHEATGRASS		10%	2.65 lbs PLS PER AC	2.15 lbs
AGROPYRON RIPARIUM / STREAMBANK WHEATGRASS		10%	2.65 lbs PLS PER AC	2.15 lbs
BROMUS COMMUTATUS / MEADOW BROMEGRASS		20%	5.30 lbs PLS PER AC	4.31 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		20%	5.30 lbs PLS PER AC	4.31 lbs
DACTYLIS GLOMERATA / ORCHARD GRASS		20%	5.30 lbs PLS PER AC	4.31 lbs
POA ALPINA / ALPINE BLUEGRASS		20%	5.30 lbs PLS PER AC	4.31 lbs
TOTAL	.87 AC	100%	26.5 lbs PLS PER AC	23.05 lbs



KEY PLAN
N.T.S.



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BIRCH ECOLOGY

Haymeadow Filing 1

Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK 172 PROFESSIONAL LANDSCAPE ARCHITECT STATE OF COLORADO

SHEET TITLE:

SYLVAN LAKE RD WEST

SHEET NUMBER:

L1.2

0' 15' 30' 60'

SCALE: 1"=30'

File Path: X:\Projects\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Planting.dwg
Plot Date/time: February 06, 2019 - 4:31 pm

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- PROPOSED CONTOURS; PER CIVIL
- 6650 EXISTING CONTOURS
- PROPOSED ASPHALT ROADS; PER CIVIL
- PROPOSED GRAVEL ROADS; PER CIVIL

NOTES

1. REFER TO CIVIL DRAWING SET FOR EXTENTS OF ALL PROPOSED SITE GRADING AND PROPOSED UTILITIES.
2. ALL DISTURBED AREAS TO BE RE-VEGETATED WITH SPECIFIED NATIVE SEED MIXES. REFER TO PLANS FOR THE SPECIFIC LOCATIONS AND DISTRIBUTION OF SEEDING. AREAS OF SEEDING ON PLANS ARE APPROXIMATE AND ARE TO BE ADJUSTED PER ACTUAL LIMITS OF DISTURBANCE IN FIELD. REFER TO CIVIL PLANS FOR UTILITY LOCATIONS PER FILING 1.
3. PLANT SPECIES AND QUANTITIES ARE SPECIFIC TO THIS SHEET. REFER TO SHEET L1.6 FOR FULL LIST OF PLANTS AND SEED MIX SPECIES PROVIDED BY DHM DESIGN AND BIRCH ECOLOGY.

PLANT LIST

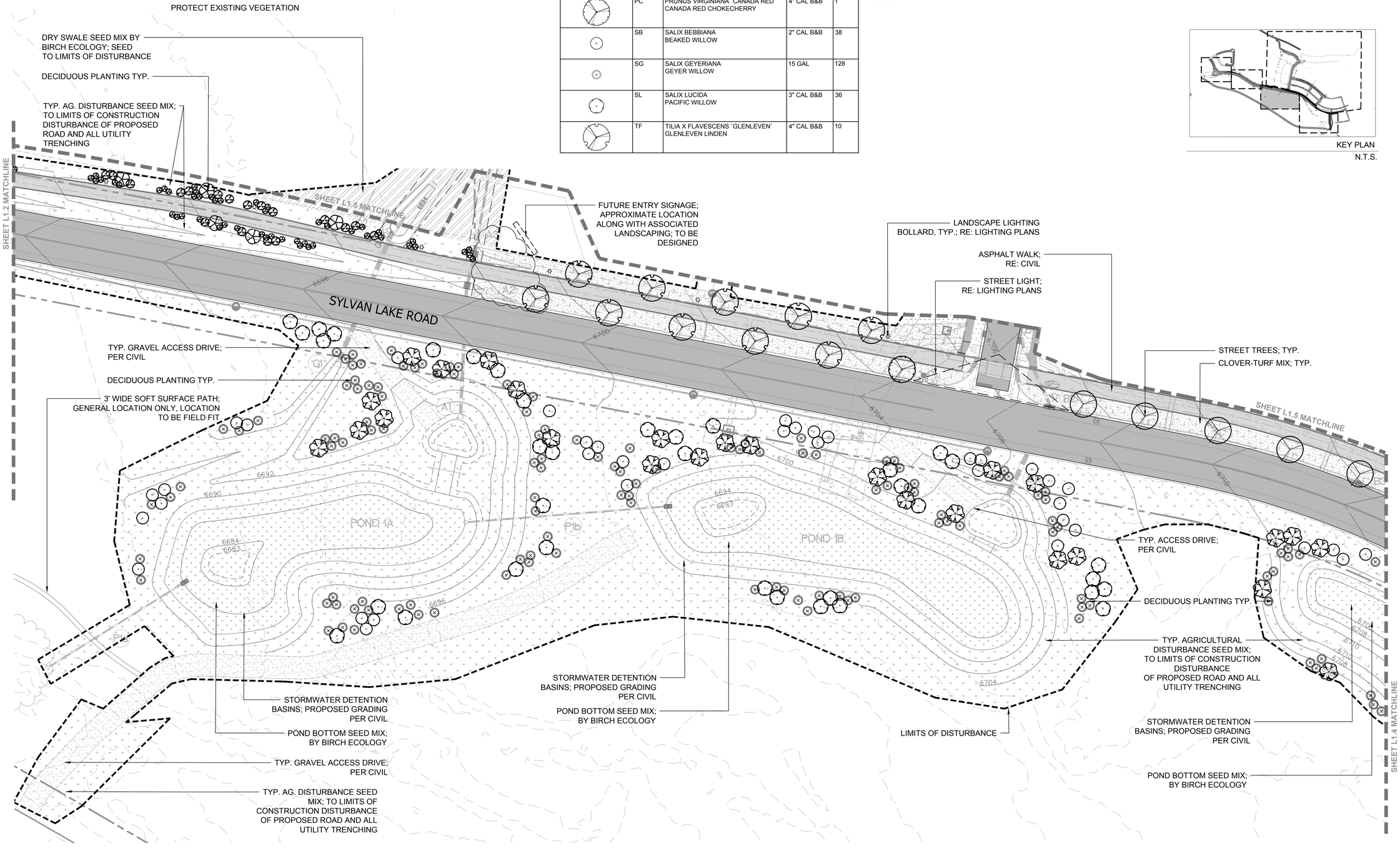
DECIDUOUS TREES	CODE	BOTANICAL / COMMON NAME	CONT	QTY
	AA	ACER FREEMANII `AUTUMN BLAZE' AUTUMN BLAZE MAPLE	4" CAL B&B	5
	AB	ACER NEGUNDO `SENSATION' SENSATION BOX ELDER MAPLE	3" CAL B&B	5
	SM2	AMELANCHIER ALNIFOLIA SASKATOON SERVICEBERRY	5 GAL	49
	SM	AMELANCHIER ALNIFOLIA `REGENT' SASKATOON SERVICEBERRY	5` CL B&B	18
	BO	BETULA OCCIDENTALIS WATER BIRCH	2" CAL B&B	26
	PC	PRUNUS VIRGINIANA `CANADA RED' CANADA RED CHOKECHERRY	4" CAL B&B	1
	SB	SALIX BEBBIANA BEAKED WILLOW	2" CAL B&B	38
	SG	SALIX GEYERIANA GEYER WILLOW	15 GAL	128
	SL	SALIX LUCIDA PACIFIC WILLOW	3" CAL B&B	36
	TF	TILIA X FLAVESCENS `GLENLEVEN' GLENLEVEN LINDEN	4" CAL B&B	10

SEED MIX LIST

	ACRES	FILL	RATE	POUNDS
TURF-CLOVER MIX				
POA PRATENSIS / KENTUCKY BLUEGRASS		50%	2 lbs PLS PER AC	.512 lbs
TRIFOLIUM REPENS / WHITE CLOVER		50%	2 lbs PLS PER AC	.512 lbs
TOTAL	.256 AC	100%	4 lbs PLS PER AC	2.05 lbs
AGRICULTURAL DISTURBANCE SEED MIX				
AGROPYRON PASCOPYRUM `ARRIBA' / WESTERN WHEATGRASS		10%	2.65 lbs PLS PER AC	2.15 lbs
AGROPYRON RIPARIUM / STREAMBANK WHEATGRASS		10%	2.65 lbs PLS PER AC	2.15 lbs
BROMUS COMMUTATUS / MEADOW BROMEGRASS		20%	5.30 lbs PLS PER AC	4.32 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		20%	5.30 lbs PLS PER AC	4.32 lbs
DACTYLIS GLOMERATA / ORCHARD GRASS		20%	5.30 lbs PLS PER AC	4.32 lbs
POA ALPINA / ALPINE BLUEGRASS		20%	5.30 lbs PLS PER AC	4.32 lbs
TOTAL	2.52 AC	100%	26.5 lbs PLS PER AC	66.78 lbs
DRY SWALE SEED MIX: BY BIRCH ECOLOGY				
TOTAL	.269 AC	100%	27.18 lbs PLS PER AC	7.31 lbs
DETENTION POND BOTTOM SEED MIX: BY BIRCH ECOLOGY				
TOTAL	.680 AC	100%	18.28 lbs PLS PER AC	12.43 lbs

KEY PLAN

N.T.S.



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BIRCH ECOLOGY

Haymeadow Filing 1

Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK 172 — STATE OF COLORADO — LICENSED LANDSCAPE ARCHITECT

SHEET TITLE:

SYLVAN LAKE RD
A1 NEIGHBORHOOD

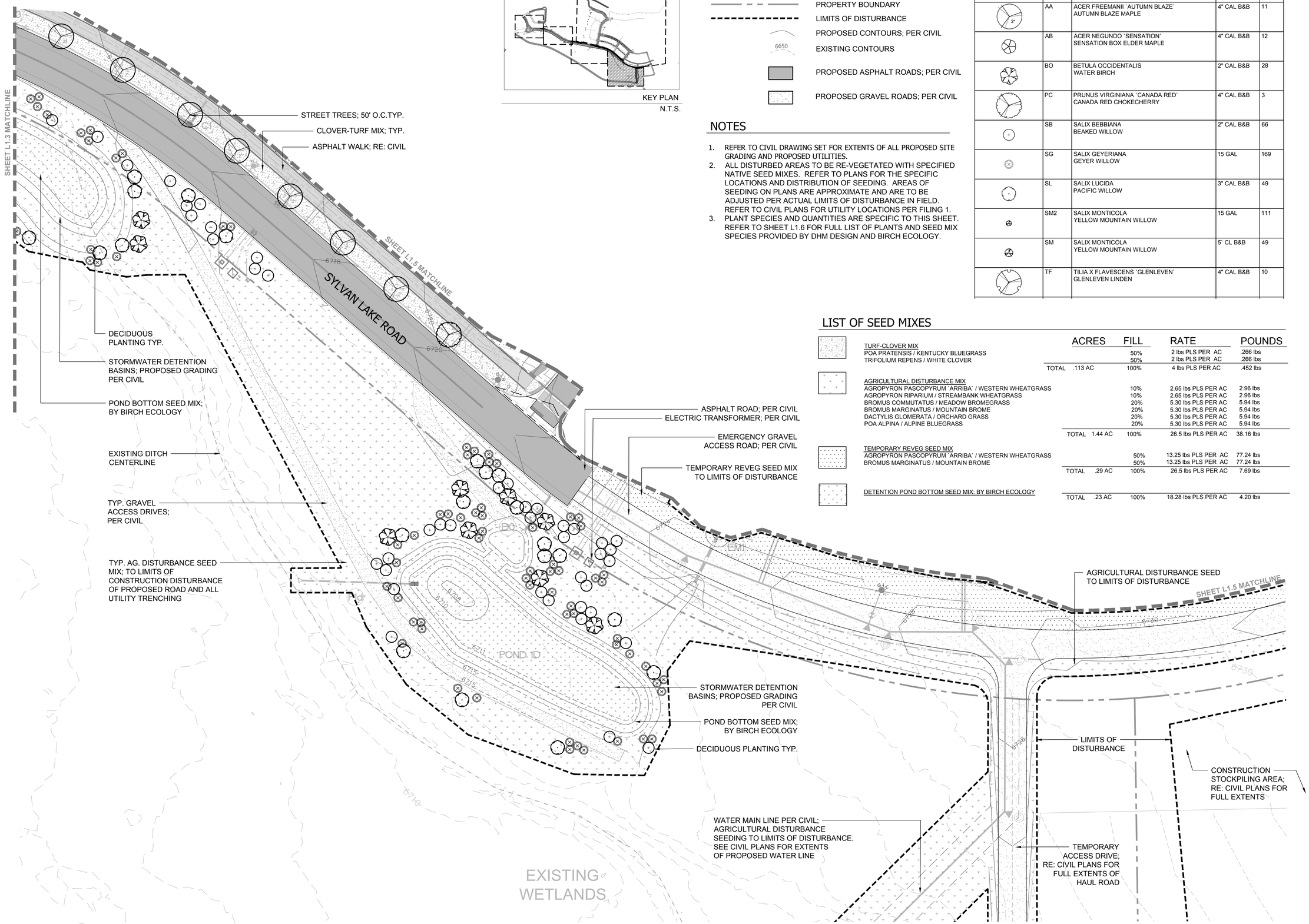
SHEET NUMBER:

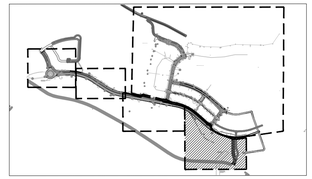
L1.3

0' 30' 60' 120'

SCALE: 1"=60'

File Path: X:\Projects\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Planting.dwg
Plot Date/Time: February 04, 2019 - 4:59 pm





KEY PLAN
N.T.S.

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- PROPOSED CONTOURS; PER CIVIL
- 6650 EXISTING CONTOURS
- PROPOSED ASPHALT ROADS; PER CIVIL
- PROPOSED GRAVEL ROADS; PER CIVIL

NOTES

1. REFER TO CIVIL DRAWING SET FOR EXTENTS OF ALL PROPOSED SITE GRADING AND PROPOSED UTILITIES.
2. ALL DISTURBED AREAS TO BE RE-VEGETATED WITH SPECIFIED NATIVE SEED MIXES. REFER TO PLANS FOR THE SPECIFIC LOCATIONS AND DISTRIBUTION OF SEEDING. AREAS OF SEEDING ON PLANS ARE APPROXIMATE AND ARE TO BE ADJUSTED PER ACTUAL LIMITS OF DISTURBANCE IN FIELD. REFER TO CIVIL PLANS FOR UTILITY LOCATIONS PER FILING 1.
3. PLANT SPECIES AND QUANTITIES ARE SPECIFIC TO THIS SHEET. REFER TO SHEET L1.6 FOR FULL LIST OF PLANTS AND SEED MIX SPECIES PROVIDED BY DHM DESIGN AND BIRCH ECOLOGY.

PLANT LIST

DECIDUOUS TREES	CODE	BOTANICAL NAME	CONT	QTY
	AA	ACER FREEMANII `AUTUMN BLAZE' AUTUMN BLAZE MAPLE	4" CAL B&B	11
	AB	ACER NEGUNDO `SENSATION' SENSATION BOX ELDER MAPLE	4" CAL B&B	12
	BO	BETULA OCCIDENTALIS WATER BIRCH	2" CAL B&B	28
	PC	PRUNUS VIRGINIANA `CANADA RED' CANADA RED CHOKECHERRY	4" CAL B&B	3
	SB	SALIX BEBBIANA BEAKED WILLOW	2" CAL B&B	66
	SG	SALIX GEYERIANA GEYER WILLOW	15 GAL	169
	SL	SALIX LUCIDA PACIFIC WILLOW	3" CAL B&B	49
	SM2	SALIX MONTICOLA YELLOW MOUNTAIN WILLOW	15 GAL	111
	SM	SALIX MONTICOLA YELLOW MOUNTAIN WILLOW	5` CL B&B	49
	TF	TILIA X FLAVESCENS `GLENLEVEN' GLENLEVEN LINDEN	4" CAL B&B	10

LIST OF SEED MIXES

	ACRES	FILL	RATE	POUNDS
TURF-CLOVER MIX				
POA PRATENSIS / KENTUCKY BLUEGRASS		50%	2 lbs PLS PER AC	.266 lbs
TRIFOLIUM REPENS / WHITE CLOVER		50%	2 lbs PLS PER AC	.266 lbs
TOTAL	.113 AC	100%	4 lbs PLS PER AC	.452 lbs
AGRICULTURAL DISTURBANCE MIX				
AGROPYRON PASCOPYRUM `ARRIBA' / WESTERN WHEATGRASS		10%	2.65 lbs PLS PER AC	2.96 lbs
AGROPYRON RIPARIUM / STREAMBANK WHEATGRASS		10%	2.65 lbs PLS PER AC	2.96 lbs
BROMUS COMMUTATUS / MEADOW BROMEGRASS		20%	5.30 lbs PLS PER AC	5.94 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		20%	5.30 lbs PLS PER AC	5.94 lbs
DACTYLIS GLOMERATA / ORCHARD GRASS		20%	5.30 lbs PLS PER AC	5.94 lbs
POA ALPINA / ALPINE BLUEGRASS		20%	5.30 lbs PLS PER AC	5.94 lbs
TOTAL	1.44 AC	100%	26.5 lbs PLS PER AC	38.16 lbs
TEMPORARY REVEG SEED MIX				
AGROPYRON PASCOPYRUM `ARRIBA' / WESTERN WHEATGRASS		50%	13.25 lbs PLS PER AC	77.24 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		50%	13.25 lbs PLS PER AC	77.24 lbs
TOTAL	.29 AC	100%	26.5 lbs PLS PER AC	7.69 lbs
DETENTION POND BOTTOM SEED MIX: BY BIRCH ECOLOGY				
TOTAL	.23 AC	100%	18.28 lbs PLS PER AC	4.20 lbs

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BIRCH ECOLOGY

Haymeadow Filing 1

Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK
172
PROFESSIONAL
Digitally signed by Laura F. Kirk
LANDSCAPE ARCHITECT
STATE OF COLORADO

SHEET TITLE:

SYLVAN LAKE RD CONTINUED

SHEET NUMBER:

L1.4

0' 30' 60' 120'

SCALE: 1"=60'

File Path: X:\Projects\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Planting.dwg
Plot Date/Time: February 04, 2019 - 4:59 pm

PLANT LIST

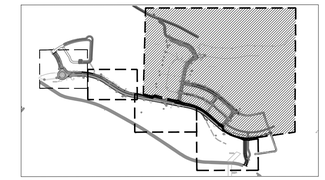
			FILL	RATE	POUNDS
TEMPORARY REVEG SEED MIX					
AGROPYRON PASCOPYRUM `ARRIBA` / WESTERN WHEATGRASS			50%	13.25 lbs PLS PER AC	77.24 lbs
BROMUS MARGINATUS / MOUNTAIN BROME			50%	13.25 lbs PLS PER AC	77.24 lbs
	TOTAL	9.57 AC	100%	26.5 lbs PLS PER AC	253.61 lbs
CUTOFF DITCH SEED MIX: BY BIRCH ECOLOGY					
	TOTAL	2.22 AC	100%	10.71 lbs PLS PER AC	23.75 lbs
DRY SWALE SEED MIX: BY BIRCH ECOLOGY					
	TOTAL	.932 AC	100%	27.18 lbs PLS PER AC	25.33 lbs
IRRIGATED NATIVE HILLSIDE SEED MIX: BY BIRCH ECOLOGY					
	TOTAL	7.24 AC	100%	30.12 lbs PLS PER AC	218.06 lbs
NON-IRRIGATED NATIVE HILLSIDE SEED MIX: BY BIRCH ECOLOGY					
	TOTAL	5.16 AC	100%	23.75 lbs PLS PER AC	122.55 lbs

NOTES:

1. THIS SHEET IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SEEDING TYPES TO FOLLOW ALL PROPOSED DISTURBANCE FOR THIS PERMIT SET.
2. REFER TO CIVIL DRAWING SET FOR EXTENTS OF ALL PROPOSED SITE GRADING AND PROPOSED UTILITIES.
3. ALL DISTURBED AREAS TO BE RE-VEGETATED WITH SPECIFIED SEED MIXES. REFER TO PLANS FOR THE SPECIFIC LOCATIONS AND DISTRIBUTION OF SEEDING. AREAS OF SEEDING ON PLANS ARE APPROXIMATE AND ARE TO BE ADJUSTED PER ACTUAL LIMITS OF DISTURBANCE IN FIELD. REFER TO CIVIL PLANS FOR UTILITY LOCATIONS PER FILING 1.
4. PLANT SPECIES AND QUANTITIES ARE SPECIFIC TO THIS SHEET. REFER TO SHEET L1.6 FOR FULL LIST OF PLANTS AND SEED MIX SPECIES PROVIDED BY DHM DESIGN AND BIRCH ECOLOGY.
5. REFER TO CIVIL PLANS FOR EXTENT OF PROPOSED PATH AND DEBRIS FLOW EARTHWORK.

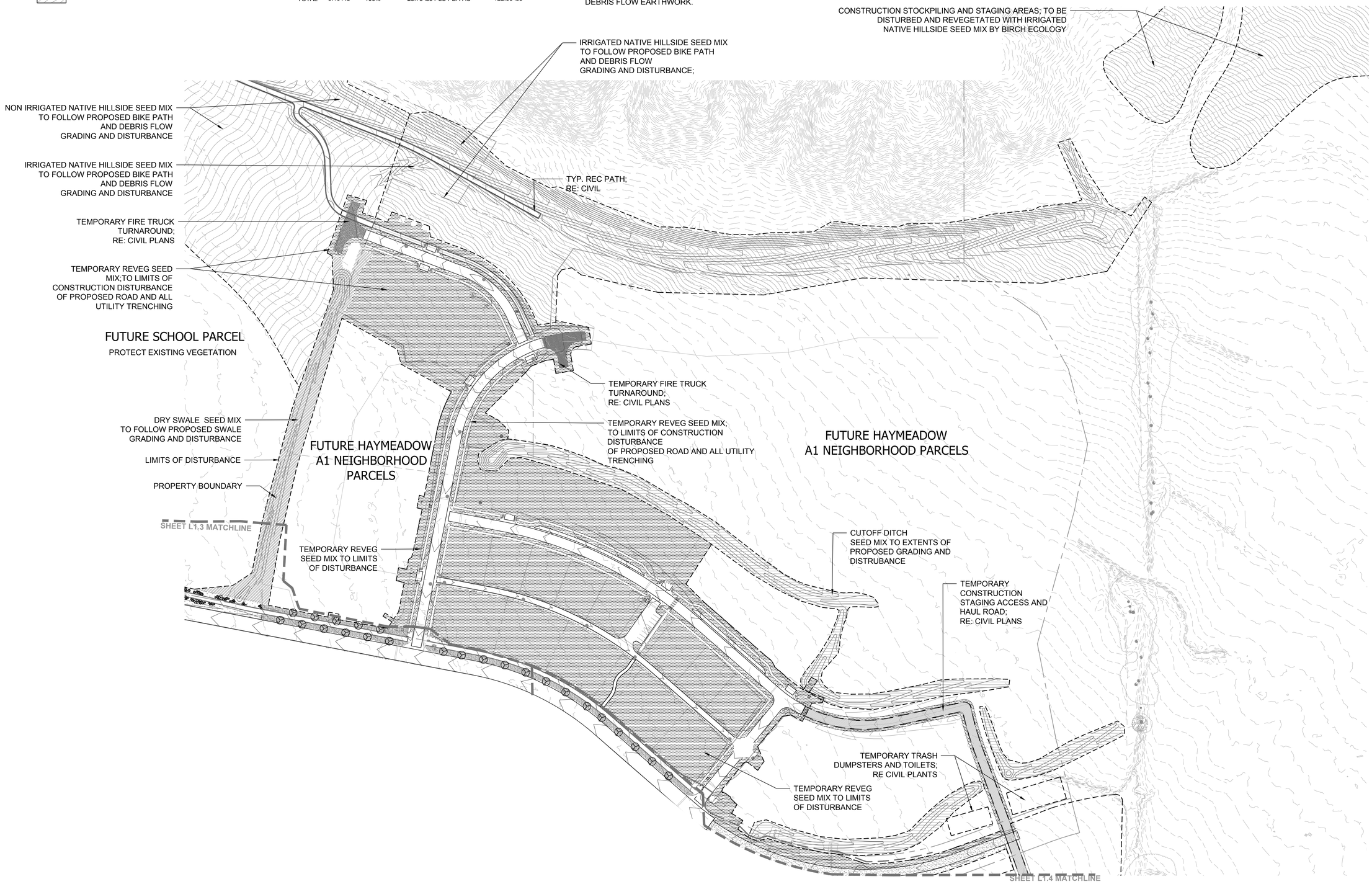
LEGEND

- PROPERTY BOUNDARY
- LIMITS OF DISTURBANCE
- PROPOSED CONTOURS; PER CIVIL
- 6650 EXISTING CONTOURS
- PROPOSED ASPHALT ROADS; PER CIVIL
- PROPOSED GRAVEL ROADS; PER CIVIL



KEY PLAN

N.T.S.



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BIRCH ECOLOGY

Haymeadow Filing 1

Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK 172 — Registered Professional Landscape Architect — STATE OF COLORADO

SHEET TITLE:

OVERALL NATIVE REVEG

SHEET NUMBER:

L1.5

0' 50' 100' 200'

SCALE: 1"=100'

File Path: X:\Projects\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Planting.dwg
Plot Date/Time: February 06, 2019 - 4:33 pm

MASTER PLANT SCHEDULE

DECIDUOUS TREES	CODE	BOTANICAL NAME	CONT	QTY
2"	AA	ACER FREEMANII `AUTUMN BLAZE` AUTUMN BLAZE MAPLE	4" CAL B&B	11
	AB	ACER NEGUNDO `SENSATION` SENSATION BOX ELDER MAPLE	4" CAL B&B	12
	BO	BETULA OCCIDENTALIS WATER BIRCH	2" CAL B&B	28
	PC	PRUNUS VIRGINIANA `CANADA RED` CANADA RED CHOKECHERRY	4" CAL B&B	3
	SB	SALIX BEBBIANA BEAKED WILLOW	2" CAL B&B	66
	SG	SALIX GEYERIANA GEYER WILLOW	15 GAL	169
	SL	SALIX LUCIDA PACIFIC WILLOW	3" CAL B&B	49
	SM2	SALIX MONTICOLA YELLOW MOUNTAIN WILLOW	15 GAL	111
	SM	SALIX MONTICOLA YELLOW MOUNTAIN WILLOW	5` CL B&B	49
	TF	TILIA X FLAVESCENS `GLENLEVEN` GLENLEVEN LINDEN	4" CAL B&B	10
SHRUBS	CODE	BOTANICAL NAME	SIZE	QTY
	CC	CARYOPTERIS X CLANDONENSIS `BLUE MIST` BLUE MIST SHRUB	5 GAL	13
	CF	CHAMAEBATIARIA LATIFOLIA FERNBUSH	5 GAL	10
	RG	RHUS AROMATICA `GRO-LOW` GRO-LOW FRAGRANT SUMAC	5 GAL	75
	VA	VIBURNUM TRILOBUM AMERICAN CRANBERRYBUSH	5 GAL	5

GENERAL PLANTING NOTES:

1. ALL PLANT MATERIALS SHALL BE NURSERY GROWN. PLANTS SHALL BE HEALTHY AND FREE OF DISEASE AND PESTS. ALL PLANT MATERIALS ARE TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. PLANT MATERIAL LOCATIONS ON THIS PLAN ARE FOR ILLUSTRATIVE AND PLANT QUANTIFICATION PURPOSES ONLY. PLANT BED LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT.
3. PLANT LAYOUT AROUND ACCESS AND INFRASTRUCTURE (I.E. VAULTS, CULVERTS, SWALES, AND TRANSFORMERS) TO BE FIELD LOCATED AND APPROVED BY THE LANDSCAPE ARCHITECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, PAVEMENTS, OR STRUCTURES THAT IS A RESULT OF HIS OR HER WORK AT NO ADDITIONAL COST TO THE OWNER. ALL EXISTING LANDSCAPE OUTSIDE LIMITS OF DISTURBANCE IS TO BE PROTECTED. ANY DAMAGE TO EXISTING VEGETATION TO REMAIN IS TO BE RESTORED TO ITS ORIGINAL CONDITION BY CONTRACTOR AT NO COST TO THE OWNER.
5. ALL DISTURBED AREAS TO BE RE-VEGETATED PER SPECIFIED SEED MIX. REFER TO PLANS FOR THE SPECIFIC LOCATIONS AND DISTRIBUTION OF SEED MIX. AREAS OF SEEDING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED OR ADJUSTED PER ACTUAL LIMITS OF DISTURBANCE.
6. ALL DISTURBED AREAS TO RECEIVE SUB-GRADE SCARIFICATION, TOPSOIL, AND SEED. IF FIELD CONDITIONS INDICATE THAT DISTURBANCE WILL EXPAND BEYOND 'LIMIT OF DISTURBANCE' LINE AS ILLUSTRATED ON THE PLANS, CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK IN THAT AREA.
7. IMMEDIATELY FOLLOWING SEEDING OPERATIONS OF SPECIFIC ZONES, THE AREAS SHALL BE PROTECTED FROM TRAFFIC OR OTHER ACTIVITIES. CONTRACTOR TO PROVIDE METHOD OF ACCESS CONTROL FOR APPROVAL BY LANDSCAPE ARCHITECT; CONTRACTOR TO MAINTAIN ACCESS CONTROL UNTIL FINAL ACCEPTANCE.
8. NOXIOUS VEGETATION SHALL BE CONTROLLED BY THE CONTRACTOR THROUGHOUT THE SEEDING ZONES AS WELL AS THE ENTIRE PROJECT SITE UNTIL FINAL ACCEPTANCE OR THROUGH THE MAINTENANCE PERIOD. THE AGGRESSIVE ESTABLISHMENT OF NEW PLANT MATERIAL IS INTENDED TO DISCOURAGE FUTURE NOXIOUS VEGETATION ENCROACHMENTS.

MASTER SEEDING SCHEDULE

	ACRES	FILL	RATE	POUNDS
TURF-CLOVER MIX				
POA PRATENSIS / KENTUCKY BLUEGRASS		50%	2 lbs PLS PER AC	.266 lbs
TRIFOLIUM REPENS / WHITE CLOVER		50%	2 lbs PLS PER AC	.266 lbs
TOTAL	.36 AC	100%	4 lbs PLS PER AC	1.44 lbs
AGRICULTURAL DISTURBANCE MIX				
AGROPYRON PASCOPYRUM `ARRIBA` / WESTERN WHEATGRASS		10%	2.65 lbs PLS PER AC	2.96 lbs
AGROPYRON RIPARIUM / STREAMBANK WHEATGRASS		10%	2.65 lbs PLS PER AC	2.96 lbs
BROMUS COMMUTATUS / MEADOW BROMEGRASS		20%	5.30 lbs PLS PER AC	5.94 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		20%	5.30 lbs PLS PER AC	5.94 lbs
DACTYLIS GLOMERATA / ORCHARD GRASS		20%	5.30 lbs PLS PER AC	5.94 lbs
POA ALPINA / ALPINE BLUEGRASS		20%	5.30 lbs PLS PER AC	5.94 lbs
TOTAL	6.12 AC	100%	26.5 lbs PLS PER AC	162.18 lbs
TEMPORARY REVEG SEED MIX				
AGROPYRON PASCOPYRUM `ARRIBA` / WESTERN WHEATGRASS		50%	13.25 lbs PLS PER AC	77.24 lbs
BROMUS MARGINATUS / MOUNTAIN BROME		50%	13.25 lbs PLS PER AC	77.24 lbs
TOTAL	9.86 AC	100%	26.5 lbs PLS PER AC	261.30 lbs
DETENTION POND BOTTOM SEED MIX: BY BIRCH ECOLOGY				
TOTAL	.91 AC	100%	18.28 lbs PLS PER AC	16.6 lbs
CUTOFF DITCH SEED MIX: BY BIRCH ECOLOGY				
TOTAL	2.22 AC	100%	10.71 lbs PLS PER AC	23.78 lbs
DRY SWALE SEED MIX: BY BIRCH ECOLOGY				
TOTAL	1.20 AC	100%	27.18 lbs PLS PER AC	32.60 lbs
IRRIGATED NATIVE HILLSIDE SEED MIX: BY BIRCH ECOLOGY				
TOTAL	11.12 AC	100%	30.12 lbs PLS PER AC	334.95 lbs
NON-IRRIGATED NATIVE HILLSIDE SEED MIX: BY BIRCH ECOLOGY				
TOTAL	13.78 AC	100%	23.75 lbs PLS PER AC	327.30 lbs

DETENTION POND BOTTOM SEED SCHEDULE: BY BIRCH ECOLOGY

Scientific Name	Common Name	Variety	Seeding Rate PLS Lbs./acre
Eleocharis palustris	Creeping spikerush	Native CO	1
Carex lanuginosa	Woolly sedge	Native CO	1
Glyceria grandis	American mannagrass	Native CO	1
Juncus balticus	Baltic rush	Native CO	0.125
Juncus longistylis	Longstyle rush	Native CO	0.03125
Juncus torreyi	Torrey's rush	Native CO	0.0625
Scirpus americanus	Threesquare bulrush	Native CO	2
Scirpus maritimus	Alkali bulrush	Native CO	1
Triglochin maritima	Arrowgrass	Native CO	1.25
Puccinellia airoides	Nuttall alkaligrass	Native CO	0.25
		Graminoid Total	7.71875
Aster lanceolatus ssp. hesperius	Siskiyou aster	Native CO	0.5
Asclepias speciosa	Showy milkweed	Native CO	2
Geum macrophyllum	Largeleaf avens	Native CO	2
Iris missouriensis	Rocky Mountain iris	Native CO	4
Solidago canadensis	Canada goldenrod	Native CO	0.0625
Sidalcea neomexicana	New Mexico checkermallow	Native CO	2
		Forb Total	10.5625
		GRAND TOTAL:	18.28125

DRY SWALE SEED SCHEDULE: BY BIRCH ECOLOGY

Scientific Name	Common Name	Variety	Seeding Rate PLS Lbs./acre
SHRUBS			
Artemisia tridentata var. tridentata	Basin big sagebrush	Native CO	0.25
		TOTAL SHRUBS:	0.25
GRAMINOIDS			
Elymus elymoides	Squirreltail	State Bridge or Tusas	2
Elymus trachycaulus	Slender wheatgrass	Pryor	4
Koeleria macrantha	Junegrass	Native CO	0.125
Oryzopsis hymenoides	Indian ricegrass	Paloma	4
Leymus cinereus	Basin wildrye	Native CO	4
Pascopyrum smithii	Western wheatgrass	Arriba	5
Poa fendleriana	Muttongrass	Native CO	0.125
Poa secunda	Sandberg bluegrass	Native CO	0.25
Pseudoroegneria spicata	Bluebunch wheatgrass	Anatone	2
Stipa comata	Needle and thread	Native CO	2
		Graminoid Total	23.5
FORBS			
Achillea millefolium	Yarrow	Native CO	0.0625
Artemisia frigida	Fringed sage	Native CO	0.0625
Erysimum capitatum	Western wallflower	Native CO	1
Ipomopsis aggregata	Scarlet gilia	Native CO	0.5
Penstemon strictus	Rocky Mountain penstemon	Native CO	1
Artemisia ludoviciana	White sage	Native CO	0.0625
Sphaeralcea coccinea	Scarlet globemallow	Native CO	0.75
		Forb Total	3.4375
		GRAND TOTAL:	27.1875

IRRIGATED NATIVE HILLSIDE SEED SCHEDULE: BY BIRCH ECOLOGY

Scientific Name	Common Name	Variety	Seeding Rate PLS Lbs./acre
SHRUBS			
Artemisia tridentata var. tridentata	Basin big sagebrush	Native CO	0.25
		TOTAL SHRUBS:	0.25
GRAMINOIDS			
Elymus elymoides	Squirreltail	State Bridge or Tusas	2
Elymus trachycaulus	Slender wheatgrass	Pryor	4
Koeleria macrantha	Junegrass	Native CO	0.125
Oryzopsis hymenoides	Indian ricegrass	Paloma	4
Leymus cinereus	Basin wildrye	Native CO	4
Pascopyrum smithii	Western wheatgrass	Arriba	5
Poa fendleriana	Muttongrass	Native CO	0.125
Poa secunda	Sandberg bluegrass	Native CO	0.25
Pseudoroegneria spicata	Bluebunch wheatgrass	Anatone	2
Stipa comata	Needle and thread	Native CO	2
		Graminoid Total	23.5
FORBS			
Achillea millefolium	Yarrow	Native CO	0.0625
Artemisia frigida	Fringed sage	Native CO	0.0625
Erysimum capitatum	Western wallflower	Native CO	1
Ipomopsis aggregata	Scarlet gilia	Native CO	0.5
Penstemon strictus	Rocky Mountain penstemon	Native CO	1
Sphaeralcea coccinea	Scarlet globemallow	Native CO	0.75
		Forb Total	6.375
		GRAND TOTAL:	30.125

NON-IRRIGATED NATIVE HILLSIDE SEED SCHEDULE: BY BIRCH ECOLOGY

Scientific Name	Common Name	Variety	Seeding Rate PLS Lbs./acre
Eleocharis palustris	Creeping spikerush	Native CO	1
Carex lanuginosa	Woolly sedge	Native CO	1
Deschampsia caespitosa	Tufted hairgrass	Native CO	0.25
Glyceria grandis	American mannagrass	Native CO	0.5
Juncus balticus	Baltic rush	Native CO	0.125
Juncus longistylis	Longstyle rush	Native CO	0.03125
Juncus torreyi	Torrey's rush	Native CO	0.0625
Scirpus americanus	Threesquare bulrush	Native CO	2
Scirpus maritimus	Alkali bulrush	Native CO	1
Puccinellia airoides	Nuttall alkaligrass	Native CO	0.25
		Graminoid Total	6.21875
Aster lanceolatus ssp. hesperius	Siskiyou aster	Native CO	0.5
Asclepias speciosa	Showy milkweed	Native CO	2
Sidalcea neomexicana	New Mexico checkermallow	Native CO	2
		Forb Total	4.5

CUTOFF DITCH SEED SCHEDULE: BY BIRCH ECOLOGY

Scientific Name	Common Name	Variety	Seeding Rate PLS Lbs./acre
Eleocharis palustris	Creeping spikerush	Native CO	1
Carex lanuginosa	Woolly sedge	Native CO	1
Deschampsia caespitosa	Tufted hairgrass	Native CO	0.25
Glyceria grandis	American mannagrass	Native CO	0.5
Juncus balticus	Baltic rush	Native CO	0.125
Juncus longistylis	Longstyle rush	Native CO	0.03125
Juncus torreyi	Torrey's rush	Native CO	0.0625
Scirpus americanus	Threesquare bulrush	Native CO	2
Scirpus maritimus	Alkali bulrush	Native CO	1
Puccinellia airoides	Nuttall alkaligrass	Native CO	0.25
		Graminoid Total	6.21875
Aster lanceolatus ssp. hesperius	Siskiyou aster	Native CO	0.5
Asclepias speciosa	Showy milkweed	Native CO	2
Sidalcea neomexicana	New Mexico checkermallow	Native CO	2
		Forb Total	4.5
		GRAND TOTAL:	10.71875

GENERAL SEEDING NOTES:

1. ALL AREAS OF DISTURBANCE TO BE SEEDED. IMMEDIATELY FOLLOWING SEEDING ALL AREAS SHALL BE PROTECTED FROM TRAFFIC OR OTHER ACTIVITIES - EXCEPT WEED CONTROL.
2. ALL SEEDED AREAS TO RECEIVE MULCH APPLIED PER MANUFACTURERS RECOMMENDATIONS. BIRCH ECOLOGY AND LANDSCAPE ARCHITECT TO PROVIDE MULCH PRODUCT RECOMMENDATIONS.
3. ENSURE ALL SEEDING PREP WORK IS COMPLETE AND REVIEWED BY LANDSCAPE ARCHITECT/ ECOLOGIST PRIOR TO ANY SEEDING
4. MINIMIZE IMPACT AND DISTURBANCE IN ALL AREAS TO GREATEST EXTENT POSSIBLE WHEN PLANTING.
5. ALL CONSTRUCTION ACCESS AREAS TO BE RE-SEEDED.
6. SEED INSPECTION AND VERIFICATION IS TO BE PROVIDED BEFORE ACCEPTANCE INCLUDING: BLUE TAGGED SEED/ STATE OF CO CERTIFICATION/ PURE LIVE SEED (PLS) CERTIFICATION SEED VARIETY/ PERCENTAGE OF WEIGHT/ NOXIOUS VEGETATION CERTIFICATION.
7. THESE PLANS COVER PLANTING ONLY. OTHERS ARE RESPONSIBLE FOR IRRIGATION DESIGN FOR AREAS TO BE IRRIGATED.
8. SEED BED PREPARATION AND INSTALLATION TECHNIQUES TO BE COORDINATED WITH BIRCH ECOLOGY AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

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LANDSCAPE ARCHITECTURE
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BIRCH ECOLOGY

Haymeadow Filing 1
Town of Eagle, Colorado

PROJECT NO: 16453.00

ISSUE:

FILING 1 PERMIT SUBMITTAL: 2018.09.14
RESPONSE TO TOWN COMMENTS: 2019.02.15

LAURA F. KIRK 172 PROFESSIONAL LANDSCAPE ARCHITECT STATE OF COLORADO

SHEET TITLE:

MASTER PLANT LIST & NOTES

SHEET NUMBER:

L1.6

File Path: X:\Projects\Haymeadow_2017 and Beyond\6_PERMIT\Access and Infrastructure\CAD\Sheets\20190204_Haymeadow_Planting.dwg
Plot Date/Time: February 05, 2019 - 4:40 pm

02.21.19 3:32:03 PM S:\BGPROJECTS\10011.00 HAYMEADOW PHASE 1A ROADS & PATHS\DRAWINGS\10011.00E0.00.DWG

ELECTRICAL SYSTEMS LEGEND

NOTE: ALL SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY USED.

LIGHTING FIXTURE SYMBOLS

- RECESSED LIGHTING FIXTURE
- DIRECTIONAL/ADJUSTABLE RECESSED LIGHTING FIXTURE
- SURFACE MOUNTED LIGHT
- PENDANT MOUNTED LIGHT
- WALL MOUNTED LIGHT
- WALL MOUNTED UP-LIGHT
- MONO-POINT LIGHTING FIXTURE
- RECESSED STEP LIGHT
- FLUORESCENT STRIP LIGHT
- WALL MOUNTED LINEAR FLUORESCENT LIGHT
- RECESSED OR SURFACE MOUNTED FLUORESCENT TROFFER
- FIXTURE WITH EMERGENCY BACKUP OR ON EM CIRCUIT
- CEILING MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN
- WALL MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN
- EMERGENCY LIGHTS
- EXTERIOR POLE MOUNTED LIGHT
- EXTERIOR POST (BOLLARD) MOUNTED LIGHT

LIGHTING CONTROL SYMBOLS

Symbol	Description
S	SWITCH
S^3	THREE-WAY SWITCH
S^4	FOUR-WAY SWITCH
S^J	DOOR JAMB SWITCH
S^K	KEY SWITCH
S^V	VARIABLE SPEED SWITCH
S^T	THERMAL OVERLOAD SWITCH
D	DIMMER
D^3	THREE-WAY DIMMER
LV	LOW VOLTAGE SWITCH
S^O	WALL OCCUPANCY SENSOR/SWITCH
OS	OCCUPANCY SENSOR - WALL MOUNTED
OS	OCCUPANCY SENSOR - CEILING MOUNTED
OS	OCCUPANCY SENSOR - CORRIDOR CEILING MOUNTED
DL	DAYLIGHT PHOTO SENSOR

POWER SYMBOLS

- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
- DOUBLE DUPLEX RECEPTACLE
- GFCI DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE; HALF SWITCHED
- ISOLATED GROUND DUPLEX RECEPTACLE
- MULTI-OUTLET PLUG STRIP
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
- FLUSH FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE; HALF SWITCHED
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE AND TELECOM
- WALL MOUNTED SPECIAL OUTLET AS NOTED
- SPECIAL OUTLET AS NOTED
- JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- FLOOR MOUNTED JUNCTION BOX
- MECHANICAL EQUIPMENT POWER CONNECTION
- TIMER SWITCH
- FUSED DISCONNECT
- NON FUSED DISCONNECT
- MOTOR STARTER
- ENCLOSED CIRCUIT BREAKER
- PULL BOX
- PUSH BUTTON
- TIME CLOCK
- PHOTO-CELL
- TRANSFORMER
- PANELBOARD OR LOADCENTER
- CONTACTOR
- ELECTRIC MOTOR
- METER
- THERMOSTAT
- AUTOMATIC TRANSFER SWITCH
- CIRCUIT HOMERUN
- CONDUIT RUN
- CONDUIT RUN BELOW GRADE
- CONDUIT UP
- CONDUIT DOWN
- S SWITCH
- S^T THERMAL OVERLOAD SWITCH
- S^V VARIABLE SPEED SWITCH
- S^K KEY SWITCH

ONE-LINE DIAGRAM SYMBOLS

- DISCONNECT SWITCH
- FUSE
- CIRCUIT BREAKER
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- METER
- VOLT-METER
- AMP-METER
- SURGE PROTECTION DEVICE
- SELECTOR SWITCH
- GROUND FAULT PROTECTION
- SHUNT TRIP
- NORMALLY OPEN CONTACT
- NORMALLY CLOSED CONTACT
- GROUND
- COLD WATER GROUND CONNECTION
- BUILDING STEEL GROUND CONNECTION

ABBREVIATIONS

AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
AP	ACCESS POINT
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFG	BELOW FINISH GRADE
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CATV	COMMUNITY (CABLE) ANTENNA TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CPU	CENTRAL PROCESSING UNIT
CT	CURRENT TRANSFORMER
DISP	GARBAGE DISPOSAL
DW	DISHWASHER
(E)	EXISTING
EM	EMERGENCY
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GRD	GROUND
IAW	IN ACCORDANCE WITH
IC	INTERMEDIATE CROSS-CONNECT
IDF	INTERMEDIATE DISTRIBUTION FRAME
IG	ISOLATED GROUND
IR	INFRARED
LAN	LOCAL AREA NETWORK
MDF	MAIN DISTRIBUTION FRAME
(N)	NEW
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
PA	PUBLIC ADDRESS
REF	REFRIGERATOR
TTB	TELECOMMUNICATIONS TERMINAL BOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TVTB	TELEVISION TERMINAL BOARD
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLT
W	WATT
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WLAN	WIRELESS LOCAL AREA NETWORK
WP	WEATHERPROOF
XP	EXPLOSIONPROOF
+18"	MOUNTING HEIGHT TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR (VERIFY W/ ARCH ELEVS)

NOTES:

- LIGHT LINEWEIGHT INDICATES EXISTING.
- HATCHED AREAS INDICATE DEMOLITION.
- 'C' ADJACENT TO A DEVICE INDICATES MOUNTING ABOVE COUNTERTOP.

ELECTRICAL SHEET INDEX

#	TITLE	FOR AGENCY REVIEW	BID SET	BID SET
E0.00	ELECTRICAL COVER SHEET	√	√	√
E0.01	ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES	√	√	√
E0.02	ELECTRICAL LIGHTING FIXTURE CUTSHEETS	√	√	√
E0.03	ELECTRICAL LIGHTING FIXTURE CUTSHEETS	√	√	√
E1.01	ELECTRICAL SITE PLAN WEST	√	√	√
E1.02	ELECTRICAL SITE PLAN EAST	√	√	√
	DATE	09.14.2018	11.08.2018	02.20.2019

ISSUE LOG

ISSUE LOG KEY:
'√' ISSUED AS PART OF A SET
' ' NOT PART OF SET
'*' ISSUED FOR INFORMATION ONLY

GENERAL NOTES

1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
2. REVIEW CIVIL, LANDSCAPE ARCHITECT, AND OTHER DRAWINGS PRIOR TO BID.
3. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE OWNER.
4. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES.
5. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
6. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
7. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90 PERCENT COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS. ELECTRICAL CONTRACTOR IS TO SUBMIT A COMPLETE CONSTRUCTION DRAWING SET TO THE ELECTRICAL UTILITY COMPANY WITHIN 10 DAYS OF AWARD OF CONTRACT. COORDINATE TIMELINE OF THEIR REVIEW, APPROVAL, CONSTRUCTION SCHEDULING AND INSTALLATION OF THE UTILITY TRANSFORMER WITH THE UTILITY COMPANY. NOTIFY OWNER OF ANY SCHEDULING CONFLICTS.
8. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
9. INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
10. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
12. ALL ELECTRICAL SYSTEM COMPONENTS SHALL BE LISTED OR LABELED BY U.L. OR OTHER RECOGNIZED TESTING FACILITY.
13. ALL WIRING SHALL BE INSTALLED IN LISTED SCHEDULE 80 PVC RACEWAYS, UNLESS NOTED OTHERWISE. CONNECTORS SHALL BE INSULATED THROAT TYPE. MINIMUM RACEWAY SIZE IS 1". ALL FEEDERS SHALL BE INSTALLED IN RACEWAY CONFIGURATIONS SHOWN ON ONE-LINE. BRANCH CIRCUITS 25A AND LARGER SHALL BE INSTALLED IN INDIVIDUAL RACEWAYS. BRANCH CIRCUITS 20A AND SMALLER MAY BE GROUPED INTO RACEWAYS AS TO NOT EXCEED 6 CURRENT-CARRYING 75-DEGREE CONDUCTORS, OR 9 CURRENT-CARRYING 90-DEGREE CONDUCTORS, IN A SINGLE RACEWAY. METAL CLAD CABLE IS NOT PERMITTED.
14. ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A 200LB NYLON PULL STRING OR EQUAL, AND SHALL BE IDENTIFIED AT ALL JUNCTION, PULL AND TERMINATION POINTS, USING PERMANENT METALLIC TAGS. TAG SHALL INDICATE INTENDED USE OF CONDUIT, ORIGINATION, AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
15. WIRE SHALL BE COPPER, 75 DEGREE CELSIUS RATED FOR GENERAL USE. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREE CELSIUS AMBIENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
16. PROVIDE NEW PANELBOARD DIRECTORIES FOR NEW CIRCUITS BEING UTILIZED FOR COMPLETION OF PROJECT.
17. PANEL DIRECTORIES SHALL BE REMOVABLE. DIRECTORIES SHALL BE TYPED AND INSTALLED UNDER CLEAR PLASTIC COVERS.
18. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
19. GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
20. SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, CONTROLS, EQUIPMENT, ETC. SHALL BE CONNECTED AND OPERABLE.
21. FOR ALL EXTERIOR CONDUCTOR SPLICES IN JUNCTION BOXES, PULL BOXES, OR IN LIGHTING FIXTURE POLES, PROVIDE WEATHERPROOF SPLICE KIT OR WATERPROOF WIRENUTS. MAKE CONNECTIONS OR SPLICES TO ENSURE THAT NO METAL CONDUCTOR IS EXPOSED TO CORROSION.

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HAYMEADOW FILING 1
ACCESS & INFRASTRUCTURE PLANS

Current Issue: 100% Construction Documents

Issued:

FOR AGENCY REVIEW	09.14.18
RESPONSE TOWN COMMENTS	02.20.19

Sheet Title: ELECTRICAL COVER SHEET

Date:	02/20/19
Designed:	TMM
Reviewed:	TMM
Project No:	10011.00

Sheet No: E0.00

Scale: As Shown

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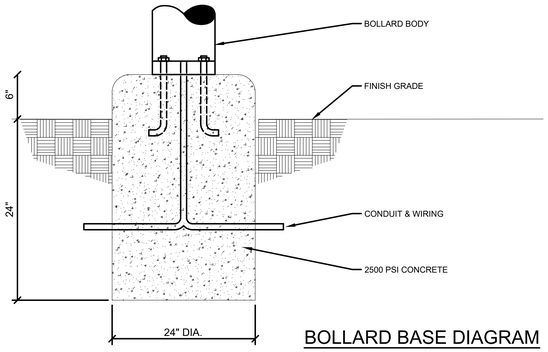
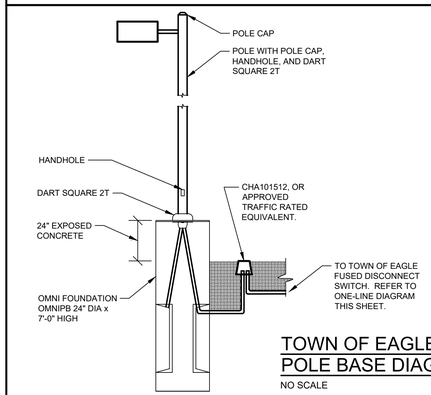


BOLLARD BASE DIAGRAM

NO SCALE

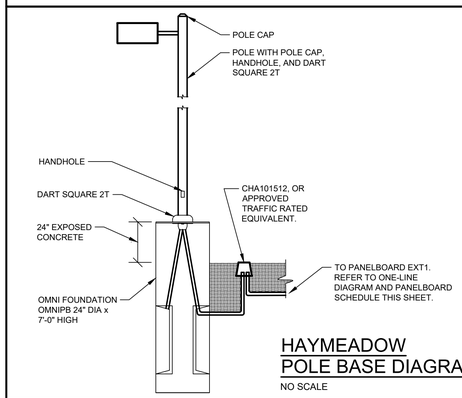
(A)



TOWN OF EAGLE POLE BASE DIAGRAM

NO SCALE

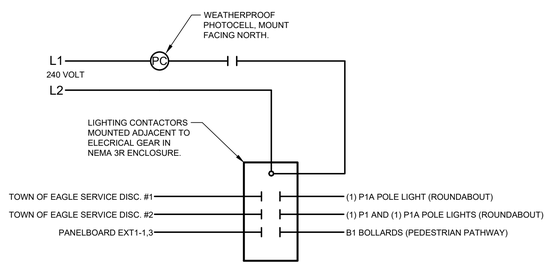
(B)



HAYMEADOW POLE BASE DIAGRAM

NO SCALE

(C)



EXTERIOR LIGHTING CONTROL DIAGRAM

NO SCALE

(D)

SITE LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMPS QTY	LAMPS TYPE	LAMPS LUMENS	INPUT WATTS	VOLT	MANUFACTURER	CATALOG NUMBER	SPECIFIC NOTES
B1	(BIKE PATH) 24" LED BOLLARD ON 6" BASE, CROWNED TOP, NO UP-LIGHT OPTIC, TYPE III DISTRIBUTION WITH HOUSE-SIDE SHIELD, DARK BRONZE FINISH	CONCRETE BOLLARD BASE	--	LED	1037	22	UNV	KIM LIGHTING	PA7R-CT-NU-3HS-12L-020-4K7-24A-DB-UNV	1,5
P1	(ROUNDABOUT) LED STREET LIGHT, 20' POLE ON 2' POLE BASE, TYPE III DISTRIBUTION, POLYCARBONATE LENS, DARK BRONZE FINISH	CONCRETE POLE BASE	--	LED	5524	67	240	KIM LIGHTING	1A-CCS17A-3-E35-60L-5K-240-DB-L17F	2,4,6
P1A	(ROUNDABOUT) LED STREET LIGHT, SIMILAR TO TYPE P1 EXCEPT FURNISHED WITH TWO (2) HEADS	CONCRETE POLE BASE	--	LED	(2) 5524	(2) 67	240	KIM LIGHTING	(2) 1A-CCS17A-3-E35-60L-5K-240-DB-L17F	2,4,6
P2	(INTERSECTIONS) LED STREET LIGHT, 20' POLE ON 2' BASE, TYPE III DISTRIBUTION WITH HOUSE-SIDE SHIELD, POLYCARBONATE LENS, INTEGRAL PHOTOCELL, DARK BRONZE FINISH	CONCRETE POLE BASE	--	LED	4258	67	240	KIM LIGHTING	1A-CCS17A-3-E35-60L-4K-240-DB-A32-L17F-NFO	3,4,6

GENERAL NOTES:

A. THE LUMINAIRE SCHEDULE CAN NOT BE USED INDEPENDENTLY OF THE DRAWINGS AND SPECIFICATIONS TO OBTAIN LUMINAIRE COSTS. THE INDIVIDUAL ESTABLISHING LUMINAIRE COSTS SHALL NOT QUOTE PRICING WITHOUT FIRST SEEING APPLICABLE ELECTRICAL DRAWINGS AND ELECTRICAL DIVSION SPECIFICATIONS. THE CONTRACTOR IS REPONSIBLE FOR PROVIDING NECESSARY DRAWINGS AND SPECIFICATIONS TO THE INDIVIDUAL QUOTING LUMINAIRE PRICING.

SPECIFIC NOTES:

(1) REFER TO BOLLARD BASE DIAGRAM A ON THIS SHEET FOR MOUNTING DETAILS.
(2) REFER TO TOWN OF EAGLE POLE BASE DIAGRAM B ON THIS SHEET FOR MOUNTING DETAILS.
(3) REFER TO HAYMEADOW POLE BASE DIAGRAM C ON THIS SHEET FOR MOUNTING DETAILS.
(4) PROVIDE 20' VALMONT R/200045456S4/D1/DDB POLE PER TOWN OF EAGLE STANDARD.
(5) CENTER OF BOLLARD/BASE SHALL BE LOCATED 1' OFF EDGE OF PEDESTRIAN PATHWAY.
(6) CENTER OF POLE/BASE SHALL BE LOCATED 3' OFF BACK OF CURB.

SERVICE WIRING SCHEDULE

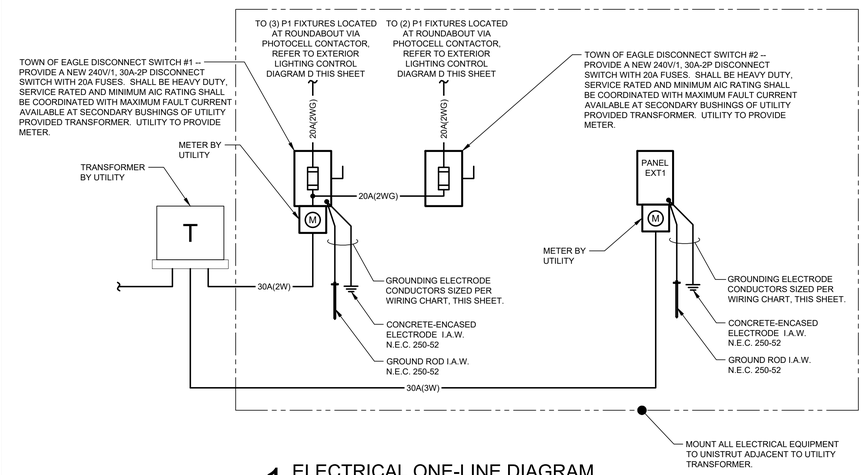
AMPS	COPPER (3W) 1Ø, 3 WIRE	C.E.C.	G.RING	G. ROD
30	(3#10) 1"C	#8 CU	#8 CU	#8 CU

CONDUIT SIZES ARE BASED ON NEC TABLE 4 (RNC) AND TABLE 5 (THHN INSULATION).
ABBREVIATIONS: C.E.C. - CONCRETE ENCASED ELECTRODE; G.RING. - GROUND RING; G.ROD - GROUND ROD, PIPE OR PLATE ELECTRODE

WIRING SCHEDULE - COPPER

AMPS	(2WG) 1Ø, 2 WIRE, GROUND	(3WG) 1Ø, 3 WIRE, GROUND OR 3Ø, 3 WIRE, GROUND
20	(2#10 & 1#10 G) 1"C*	(3#10 & 1#10 G) 1"C*
30	(2#10 & 1#10 G) 1"C	(3#10 & 1#10 G) 1"C

*CONDUCTORS UPSIZED FOR VOLTAGE DROP CONSIDERATIONS.
CONDUCTOR SIZES ARE BASED ON 60° TERMINATIONS LESS THAN 100A AND 75° TERMINATIONS GREATER THAN 100A.
CONDUIT SIZES ARE BASED ON NEC TABLE 4 (RNC) AND TABLE 5 (THHN INSULATION).



1 ELECTRICAL ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

PANEL:	EXT1	**VOLTAGE:**	120/240V, 1PH, 3W
LOCATION:	ADJACENT TO XFMR	**MINIMUM BUS:**	100
MOUNTING:	SURFACE	**MAIN:**	30/2 CB
		MINIMUM AIC:	SPECIFIC NOTE 1

NO.	LOAD A	LOAD B	TYPE	LOAD DESCRIPTION	BREAKER POLE	BREAKER TRIP	BUS A	BUS B	BREAKER TRIP	BREAKER POLE	TYPE	LOAD DESCRIPTION	LOAD A	LOAD B	NO.
1	143		L	B1 BOLLARDS (2)	2	20	+		20	2	L	P2 POLES	168		2
3		143	L		--	--		+	--	--	L	--		168	4
5	100		E	IRRIGATION CNTRL	1	20	+		1	20		SPARE			6
7				SPARE	1	20		+	1	20		SPARE			8
9				SPACE			+					SPACE			10
11				SPACE				+				SPACE			12
13				SPACE			+					SPACE			14
15				SPACE				+				SPACE			16
17				SPACE			+					SPACE			18

LOAD TYPE	PANEL TOTAL	FEED THRU TOTAL	SUBFEED TOTAL	FEEDER SUBTOTAL	DEMAND	FEEDER TOTAL
(L) LIGHTING	621			621	125%	776
(R) RECEPTACLES	0			0	NEC 220	0
(LM) LRG. MOTOR	0			0	25%	0
(M) MOTORS (ALL)	0			0	100%	0
(E) EQUIPMENT	100			100	100%	100
(A) APPLIANCES	0			0	0	0
				PANEL TOTAL (KVA):		**0.9**
				PANEL TOTAL (A):		**4**

GENERAL NOTES:

A. PROVIDE NEMA 3R ENCLOSURE.
B. PANEL SHALL BE SERVICE ENTRANCE RATED.
C.
D.
E

SPECIFIC NOTES:

(1) COORDINATE MINIMUM AIC WITH MAXIMUM FAULT CURRENT AVAILABLE AT SECONDARY BUSHINGS OF UTILITY PROVIDED TRANSFORMER.
(2) REFER TO EXTERIOR LIGHTING CONTROL DIAGRAM D FOR CONTROL DETAILS.

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COLORADO LICENSED PROFESSIONAL ENGINEER TIMOTHY MARTIN MACKEY 47978 2/20/19

HAYMEADOW FILING 1
ACCESS & INFRASTRUCTURE PLANS

Current Issue:
100% Construction Documents

Issued:

FOR AGENCY REVIEW	09.14.18
RESPONSE TOWN COMMENTS	02.20.19

Sheet Title:
ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES

Date:	02/20/19
Designed:	TMM
Reviewed:	TMM
Project No:	10011.00

Sheet No:
E0.01

Scale: As Shown

02.21.19 3:32:13 PM S:\BGPROJECTS\10011.00 HAYMEADOW PHASE 1A ROADS & PATHS\DRAWINGS\10011.00E0.01.DWG

KIM LIGHTING

CC/CCS17
17" Arm Mounted, Curvilinear, PicoEmitter® LED
kl_cc17aeled_spec.pdf

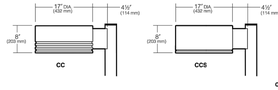
JOB Haymeadow Phase 1A TYPE P1

NOTES APPROVALS

FEATURES
- Full Cutoff PicoEmitter technology
- Patented low profile luminaire[1]
- Available in 580nm, 3000K, 4000K and 5000K standard CCT
- Type 1, 2, 3, 4, 5, R, L distributions
- 0-10V dimming drivers standard
- Sealed optical chamber, IP66 certified

Certifications
cULus LISTED; kia (3000K and warmer CCTs only); DLC; IK09

SPECIFICATIONS



Max. Weight = 27 lbs. EPA 0.9 for 1A.
See Configuration for Additional EPAs.

ORDERING CODE

Configuration		EPA
1A	1 Arm Side Mt.	0.9
2B	2 Arm Side Mt.	1.8
2L	2 Arm Side Mt.	1.6
3T	3 Arm Side Mt.	2.5
3Y*	3 Arm Side Mt.	2.5
4C	4 Arm Side Mt.	2.8
1W	Single Wall Mt.	n/a
HSF	Horizontal Slipfitter	n/a

*Available round poles only. EPA is for fixture only

Fixture

Housing: CC17A Arm Mount, three reveal; CCS17A Arm Mount, single groove

Distribution: 1 Type I; 2 Type II; 3 Type III; 4 Type IV; 5 Type V; R Type R, Right; L Type L, Left

Drive Current: E35 350mA PicoEmitter

Electrical Module

Source: 60L 60 LEDs, 67W

Color Temperature[2]: 2K 580nm[3]; 3K 3000K; 4K 4000K; 5K 5000K

Voltages: 120 120V; 208 208V; 240 240V; 277 277V; 347 347V*; 480 480V*

Fixture Finish

BL Black; DB Dark Bronze; GT Graphite; LG Light Gray; PS Platinum Silver; TT Titanium; WH White; CC Custom Color*

*Consult Representative

Photocell Options

A25-7 7-pin Photocell Receptacle; A30 120V Button Photocell; A31 208V Button Photocell; A32 240V Button Photocell; A33 277V Button Photocell; A34 480V Button Photocell; A35 347V Button Photocell

For Pole Spec Select: http://www.kimlighting.com/products/arms_and_poles/
For Control Spec Select: http://tryosl.com/index.html

Fuse Options

SF 120, 277, 347 Line Volts; DF 208, 240, 480 Line Volts

Lens Options

L17F Polycarbonate Lens[5]

NFO Option

NFO Neighbor Friendly Optic. Photometry available for Type III/IV. All others, consult factory.

Other Options

REV Accent Reveal[6]

Control Options

Wireless: WIR-RMI-IO 120-347V, 1000' range, WiScape RF mesh control system with off/on/dim, motion, photo, GPS location, alert, monitoring and metering capabilities.

Motion: SCL-R Round Pole Mounted Occupancy Sensor up to 16'; SCL-S Square Pole Mounted Occupancy Sensor up to 16'; SCH-R Round Pole Mounted Occupancy Sensor 16' to 30'; SCH-S Square Pole Mounted Occupancy Sensor 16' to 30'

Mounting Options

VSF Vertical Slipfitter Mount for 2" pipe tenon, (2-3/8" O.D.); SVSF Vertical Slipfitter Mount square for 2" pipe tenon, (2-3/8" O.D.)

Side Arm Mount: 3 3" O.D. Pole; 3.5 3.5" O.D. Pole; 4 4" O.D. Pole; 5 5" O.D. Pole; 6 6" O.D. Pole; SQ Square Pole

Control Accessories

SWTPR[1,4] Site Sync with 7 pin PCR; SWUSB[7] SiteSync Software on USB; SWTAB[7] SiteSync Windows® Tablet; SWBRG[7] SiteSync Wireless Bridge Node; WIR-RME-L wiSCAPE External Fixture Module

[1] US Patent No. D568,521 S. Other patents pending.
[2] For custom optics and color temperature configurations, contact factory.
[3] Turtle friendly. Maximum 500mA drive current for 2K amber option.
[4] 347V & 480V currents may be supplied with step-down transformer.
[5] Use only when vandalism is anticipated to be high. Required only for vandal protection in locations where fixtures can be reached by unauthorized persons.
[6] CC only. Available in 6 standard fixture finishes. Specify finish, example: BL-REV.
[7] Not available with other sensor or wireless control options.
[8] Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for more details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node.

SiteSync Lighting Control is available from our most popular brands in a broad range of award-winning product families.

Kim Lighting reserves the right to change specifications without notice.

KIM LIGHTING

CC/CCS17
17" Arm Mounted, Curvilinear, PicoEmitter® LED
kl_cc17aeled_spec.pdf

LUMINAIRE PERFORMANCE

Spectroradiometric

	3000K Average	4000K Average	5000K Average
Color Rendering Index (CRI)	≥80	≥80	≥70
Power Factor	>.90	>.90	>.90

Projected Lumen Maintenance

mA	100,000 hrs	(Calculated L70)
350	93.22%	584,000 hrs.

Electrical Drive Current

Volts - AC	Amps - AC	System Watts
120	0.56	67
208	0.32	67
240	0.28	67
277	0.24	67
347	0.19	67
480	0.14	67

B.U.G. Rating (TM15) in Lumens wher B = Backlight, U = Uplight, G = Glare

Temperature	TYPE 1	TYPE 2	TYPE 3	TYPE 3 NFO	TYPE 4	TYPE 4 NFO	TYPE 5	TYPE L/R
3000K	B2 U0 G2	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G1	B0 U0 G1	B2 U0 G1	TBD
4000K	B3 U0 G3	B2 U0 G2	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G1	B3 U0 G1	TBD
5000K	B3 U0 G3	B2 U0 G2	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G1	B3 U0 G1	TBD

Absolute Lumens

Temperature	TYPE 1	TYPE 2	TYPE 3	TYPE 3 NFO	TYPE 4	TYPE 4 NFO	TYPE 5	TYPE L/R
3000K	3861	3959	3931	3248	3912	3294	3971	TBD
4000K	5062	5190	4972	4258	5129	4319	5206	TBD
5000K	5426	5564	5524	4564	5581	4626	5576	TBD

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.

Kim Lighting reserves the right to change specifications without notice.

KIM LIGHTING

CC/CCS17
17" Arm Mounted, Curvilinear, PicoEmitter® LED
kl_cc17aeled_spec.pdf

SPECIFICATIONS

Housing:
- One-piece die-cast, low copper (<0.6% Cu) aluminumalloy with integral cooling ribs over the optical chamber and electrical compartment.
- Solid barrier wall separates optical and electrical compartments.
- Double-thick wall with gussets on the support-arm mounting end.
- Housing forms a half cylinder with 55° front face plane providing a recess to allow a flush single-latch detail.
- All hardware is stainless steel or electro-zinc plated steel.

Lens Frame:
- One-piece die-cast, low copper (<0.6% Cu) aluminum alloy lens frame with 1" minimum depth around the gasket flange.
- Integral hinges with stainless steel pins provide no-tool mounting and removal from housing.
- Single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber by a one-piece extruded and vulcanized silicone gasket to provide an IP66 rating for the optical module.
- Clear 3/8" thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter.

Neighbor Friendly Optic
- Integrated Neighbor Friendly Optic on each PicoEmitter module to completely control unwanted backlight. Most effective with Type III and IV distributions.

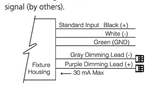
Lens:
- Fixture supplied with a one-piece flat, clear, UV stabilized polycarbonate, fully gasketed, replacing the standard tempered glass lens. **CAUTION:** Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight. A program of regular inspection and periodic replacement is highly recommended to maintain optimum fixture performance.

Optical Module:
- Precision, replaceable PicoEmitters are positioned to achieve directional control toward desired task.
- The entire EmitterDeck fastens to the housing as a one-piece module.
- Type I, II, III, IV, V, L (left), and R (right) standard distributions. Custom available.
- 3000K, 4000K, 5000K standard CCT. Amber and custom available.
- IP66 certified
- Die-cast, low copper aluminum heat sink modules provide thermal transfer at PCB level.
- Anodized aluminum carrier plate and heat sink modules.

Electrical Characteristics:
- 120V through 480V @ 50/60Hz.
- Class 1, 350mA.
- Power Factor = >.90
- National Electrical Code, ANSI/NFPA 70.
- 10kV surge suppression.
- Thermalshield thermal control.
- -40c starting driver.
- 0-10V dimming interface.
- All electronic components are IP66 rated.
- Electronic components are UL and/or CSA recognized.

Dimming:
- 10% to 100% dimming using standard 0-10V interface driver.
- To activate the dimming system, a wiring harness is supplied and attached to the DIM Port (DIM IN) on the thermal shield protection system. This port allows the 0-10V Interface to bypass the thermal shield and control the driver.
- The thermal shield works in conjunction with the control system to assure that overheating will not harm the LEDs.

The wiring harness is connected with the use of the Purple lead as the positive (+) and the Grey lead as the negative (-) to an available control signal (by others).



Support Arm:
- One-piece extruded aluminum with internal bolt guides and fully radiussed top and bottom.
- Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief.
- Arm is circular cut for specified round pole.
- Optional cast, low copper aluminum horizontal slip-fitter with adaptor plate to secure the luminaire to 2" IPS pipe size arms.
- Optional cast aluminum wall mount plate assembly. Attaches to the wall over the junction box. Luminaire attaches to the wall plate.

Finish:
- Fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat.
- Standard colors include (BL) Black, (DB) Dark Bronze, (GT) Graphite, (WH) White, (PS) Platinum Silver, (LG) Light Gray, (TT) Titanium, and (CC) Custom Color (include RAL#).

Fusing:
SF for 120, 277 and 347 Line Volts
DF for 208, 240 and 480 Line Volts.
- High temperature fuse holders factory installed inside the fixture housing. Fuse is included.

Certifications and Listings:
- UL 1598 Standard for wet locations for Luminaires.
- UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products.
- IP66 certified.
- IK09 rated.
- CSA C22.2#250.0 Luminaires.
- ANSI C136.31-2010 3G Vibration tested and compliant.
- RoHS compliant.
- IDA approved, 3000K and warmer CCTs only.

CAUTION:
- Fixtures must be grounded in accordance with national, state and/or local electrical codes, Failure to do so may result in serious personal injury.

WARRANTY:
- For full warranty see http://www.hubbelllighting.com/resources/warranty

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KIM LIGHTING

CC/CCS17
17" Arm Mounted, Curvilinear, PicoEmitter® LED
kl_cc17aeled_spec.pdf

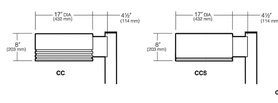
JOB Haymeadow Phase 1A TYPE P2

NOTES APPROVALS

FEATURES
- Full Cutoff PicoEmitter technology
- Patented low profile luminaire[1]
- Available in 580nm, 3000K, 4000K and 5000K standard CCT
- Type 1, 2, 3, 4, 5, R, L distributions
- 0-10V dimming drivers standard
- Sealed optical chamber, IP66 certified

Certifications
cULus LISTED; kia (3000K and warmer CCTs only); DLC; IK09

SPECIFICATIONS



Max. Weight = 27 lbs. EPA 0.9 for 1A.
See Configuration for Additional EPAs.

ORDERING CODE

Configuration		EPA
1A	1 Arm Side Mt.	0.9
2B	2 Arm Side Mt.	1.8
2L	2 Arm Side Mt.	1.6
3T	3 Arm Side Mt.	2.5
3Y*	3 Arm Side Mt.	2.5
4C	4 Arm Side Mt.	2.8
1W	Single Wall Mt.	n/a
HSF	Horizontal Slipfitter	n/a

*Available round poles only. EPA is for fixture only

Fixture

Housing: CC17A Arm Mount, three reveal; CCS17A Arm Mount, single groove

Distribution: 1 Type I; 2 Type II; 3 Type III; 4 Type IV; 5 Type V; R Type R, Right; L Type L, Left

Drive Current: E35 350mA PicoEmitter

Electrical Module

Source: 60L 60 LEDs, 67W

Color Temperature[2]: 2K 580nm[3]; 3K 3000K; 4K 4000K; 5K 5000K

Voltages: 120 120V; 208 208V; 240 240V; 277 277V; 347 347V*; 480 480V*

Fixture Finish

BL Black; DB Dark Bronze; GT Graphite; LG Light Gray; PS Platinum Silver; TT Titanium; WH White; CC Custom Color*

*Consult Representative

Photocell Options

A25-7 7-pin Photocell Receptacle; A30 120V Button Photocell; A31 208V Button Photocell; A32 240V Button Photocell; A33 277V Button Photocell; A34 480V Button Photocell; A35 347V Button Photocell

For Pole Spec Select: http://www.kimlighting.com/products/arms_and_poles/
For Control Spec Select: http://tryosl.com/index.html

Fuse Options

SF 120, 277, 347 Line Volts; DF 208, 240, 480 Line Volts

Lens Options

L17F Polycarbonate Lens[5]

NFO Option

NFO Neighbor Friendly Optic. Photometry available for Type III/IV. All others, consult factory.

Other Options

REV Accent Reveal[6]

Control Options

Wireless: WIR-RMI-IO 120-347V, 1000' range, WiScape RF mesh control system with off/on/dim, motion, photo, GPS location, alert, monitoring and metering capabilities.

Motion: SCL-R Round Pole Mounted Occupancy Sensor up to 16'; SCL-S Square Pole Mounted Occupancy Sensor up to 16'; SCH-R Round Pole Mounted Occupancy Sensor 16' to 30'; SCH-S Square Pole Mounted Occupancy Sensor 16' to 30'

Mounting Options

VSF Vertical Slipfitter Mount for 2" pipe tenon, (2-3/8" O.D.); SVSF Vertical Slipfitter Mount square for 2" pipe tenon, (2-3/8" O.D.)

Side Arm Mount: 3 3" O.D. Pole; 3.5 3.5" O.D. Pole; 4 4" O.D. Pole; 5 5" O.D. Pole; 6 6" O.D. Pole; SQ Square Pole

Control Accessories

SWTPR[1,4] Site Sync with 7 pin PCR; SWUSB[7] SiteSync Software on USB; SWTAB[7] SiteSync Windows® Tablet; SWBRG[7] SiteSync Wireless Bridge Node; WIR-RME-L wiSCAPE External Fixture Module

[1] US Patent No. D568,521 S. Other patents pending.
[2] For custom optics and color temperature configurations, contact factory.
[3] Turtle friendly. Maximum 500mA drive current for 2K amber option.
[4] 347V & 480V currents may be supplied with step-down transformer.
[5] Use only when vandalism is anticipated to be high. Required only for vandal protection in locations where fixtures can be reached by unauthorized persons.
[6] CC only. Available in 6 standard fixture finishes. Specify finish, example: BL-REV.
[7] Not available with other sensor or wireless control options.
[8] Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for more details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node.

SiteSync Lighting Control is available from our most popular brands in a broad range of award-winning product families.

Kim Lighting reserves the right to change specifications without notice.

KIM LIGHTING

CC/CCS17
17" Arm Mounted, Curvilinear, PicoEmitter® LED
kl_cc17aeled_spec.pdf

LUMINAIRE PERFORMANCE

Spectroradiometric

	3000K Average	4000K Average	5000K Average
Color Rendering Index (CRI)	≥80	≥80	≥70
Power Factor	>.90	>.90	>.90

Projected Lumen Maintenance

mA	100,000 hrs	(Calculated L70)
350	93.22%	584,000 hrs.

Electrical Drive Current

Volts - AC	Amps - AC	System Watts
120	0.56	67
208	0.32	67
240	0.28	67
277	0.24	67
347	0.19	67
480	0.14	67

B.U.G. Rating (TM15) in Lumens wher B = Backlight, U = Uplight, G = Glare

Temperature	TYPE 1	TYPE 2	TYPE 3	TYPE 3 NFO	TYPE 4	TYPE 4 NFO	TYPE 5	TYPE L/R
3000K	B2 U0 G2	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G1	B0 U0 G1	B2 U0 G1	TBD
4000K	B3 U0 G3	B2 U0 G2	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G1	B3 U0 G1	TBD
5000K	B3 U0 G3	B2 U0 G2	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G1	B3 U0 G1	TBD

Absolute Lumens

Temperature	TYPE 1	TYPE 2	TYPE 3	TYPE 3 NFO	TYPE 4	TYPE 4 NFO	TYPE 5	TYPE L/R
3000K	3861	3959	3931	3248	3912	3294	3971	TBD
4000K	5062	5190	4972	4258	5129	4319	5206	TBD
5000K	5426	5564	5524	4564	5581	4626	5576	TBD

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.

Kim Lighting reserves the right to change specifications without notice.

KIM LIGHTING

CC/CCS17
17" Arm Mounted, Curvilinear, PicoEmitter® LED
kl_cc17aeled_spec.pdf

SPECIFICATIONS

Housing:
- One-piece die-cast, low copper (<0.6% Cu) aluminumalloy with integral cooling ribs over the optical chamber and electrical compartment.
- Solid barrier wall separates optical and electrical compartments.
- Double-thick wall with gussets on the support-arm mounting end.
- Housing forms a half cylinder with 55° front face plane providing a recess to allow a flush single-latch detail.
- All hardware is stainless steel or electro-zinc plated steel.

Lens Frame:
- One-piece die-cast, low copper (<0.6% Cu) aluminum alloy lens frame with 1" minimum depth around the gasket flange.
- Integral hinges with stainless steel pins provide no-tool mounting and removal from housing.
- Single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber by a one-piece extruded and vulcanized silicone gasket to provide an IP66 rating for the optical module.
- Clear 3/8" thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter.

Neighbor Friendly Optic
- Integrated Neighbor Friendly Optic on each PicoEmitter module to completely control unwanted backlight. Most effective with Type III and IV distributions.

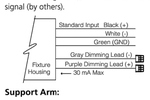
Lens:
- Fixture supplied with a one-piece flat, clear, UV stabilized polycarbonate, fully gasketed, replacing the standard tempered glass lens. **CAUTION:** Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight. A program of regular inspection and periodic replacement is highly recommended to maintain optimum fixture performance.

Optical Module:
- Precision, replaceable PicoEmitters are positioned to achieve directional control toward desired task.
- The entire EmitterDeck fastens to the housing as a one-piece module.
- Type I, II, III, IV, V, L (left), and R (right) standard distributions. Custom available.
- 3000K, 4000K, 5000K standard CCT. Amber and custom available.
- IP66 certified
- Die-cast, low copper aluminum heat sink modules provide thermal transfer at PCB level.
- Anodized aluminum carrier plate and heat sink modules.

Electrical Characteristics:
- 120V through 480V @ 50/60Hz.
- Class 1, 350mA.
- Power Factor = >.90
- National Electrical Code, ANSI/NFPA 70.
- 10kV surge suppression.
- Thermalshield thermal control.
- -40c starting driver.
- 0-10V dimming interface.
- All electronic components are IP66 rated.
- Electronic components are UL and/or CSA recognized.

Dimming:
- 10% to 100% dimming using standard 0-10V interface driver.
- To activate the dimming system, a wiring harness is supplied and attached to the DIM Port (DIM IN) on the thermal shield protection system. This port allows the 0-10V Interface to bypass the thermal shield and control the driver.
- The thermal shield works in conjunction with the control system to assure that overheating will not harm the LEDs.

The wiring harness is connected with the use of the Purple lead as the positive (+) and the Grey lead as the negative (-) to an available control signal (by others).



Support Arm:
- One-piece extruded aluminum with internal bolt guides and fully radiussed top and bottom.
- Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief.
- Arm is circular cut for specified round pole.
- Optional cast, low copper aluminum horizontal slip-fitter with adaptor plate to secure the luminaire to 2" IPS pipe size arms.
- Optional cast aluminum wall mount plate assembly. Attaches to the wall over the junction box. Luminaire attaches to the wall plate.

Finish:
- Fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat.
- Standard colors include (BL) Black, (DB) Dark Bronze, (GT) Graphite, (WH) White, (PS) Platinum Silver, (LG) Light Gray, (TT) Titanium, and (CC) Custom Color (include RAL#).

Fusing:
SF for 120, 277 and 347 Line Volts
DF for 208, 240 and 480 Line Volts.
- High temperature fuse holders factory installed inside the fixture housing. Fuse is included.

Certifications and Listings:
- UL 1598 Standard for wet locations for Luminaires.
- UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products.
- IP66 certified.
- IK09 rated.
- CSA C22.2#250.0 Luminaires.
- ANSI C136.31-2010 3G Vibration tested and compliant.
- RoHS compliant.
- IDA approved, 3000K and warmer CCTs only.

CAUTION:
- Fixtures must be grounded in accordance with national, state and/or local electrical codes, Failure to do so may result in serious personal injury.

WARRANTY:
- For full warranty see http://www.hubbelllighting.com/resources/warranty

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www.bgbuildingworks.com

COLORADO LICENSED PROFESSIONAL ENGINEER TIMOTHY J. MARTIN 47978

HAYMEADOW FILING 1
ACCESS & INFRASTRUCTURE PLANS

Current Issue:
100% Construction Documents

Issued:

FOR AGENCY REVIEW	09.14.18
RESPONSE TOWN COMMENTS	02.20.19

Sheet Title:
ELECTRICAL LIGHTING FIXTURE CUTSHEETS

Date:	02/20/19
Designed:	TMM
Reviewed:	TMM
Project No:	10011.00

Sheet No:
E0.02

Scale: As Shown

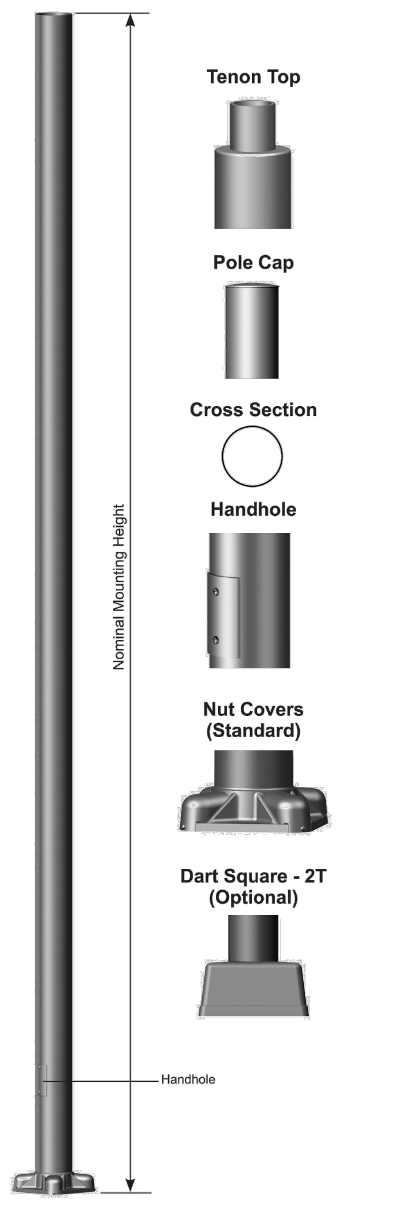
02.21.19 3:32:25 PM S:\BGPROJECTS\10011.00 HAYMEADOW PHASE 1A ROADS & PATHS\DRAWINGS\10011.00E0.02.DWG

valmont STRUCTURES

16' to 30' ROUND NON-TAPERED ALUMINUM 4-Bolt Anchor Base

Poles - Aluminum | RNTA / 4-Bolt Anchor Base | 16' to 30'

Job Name: Haymeadow Phase 1A | Client Name:
Job Location - City: Eagle State: IA | Created By: Date:
Product: Quote: | Customer Approval: Date:



SPECIFICATIONS

Pole - The pole shaft is extruded from seamless alloy aluminum.

Pole Top - A pole top tenon is provided for top mount luminaire and/or bracket. A removable pole cap is available for poles receiving drilling patterns for side-mount luminaire arm assemblies.

Handhole - A covered handhole with hardware and grounding provision are provided.

Base Cover - Optional Dart Square-2T cast and decorative base covers available as special order.

Anchor Base - The anchor base is cast from 356 alloy aluminum. The completed assembly is heat-treated to a T6 temper. Aluminum nut covers are included with anchor base unless otherwise specified.

Anchor Bolts - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

Finish - The standard finish for the pole assembly and components is satin brushed, natural anodize, duranodic or polyester powder applied coating in accordance with Valmont's Specifications. Additional finish options available upon request.

Design Criteria - Please reference Design Criteria Specification for appropriate design conditions.

16' to 30' ROUND NON-TAPERED ALUMINUM 4-Bolt Anchor Base

valmont STRUCTURES

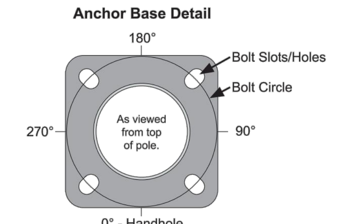
Poles - Aluminum | RNTA / 4-Bolt Anchor Base | 16' to 30'

Job Name: Haymeadow Phase 1A | Client Name:
Job Location - City: Eagle State: IA | Created By: Date:
Product: Quote: | Customer Approval: Date:

ANCHORAGE DATA

POLE BASE OD (IN)	POLE WALL THK (IN)	BASE PLATE BOLT CIRCLE DIA (IN)	BOLT CIRCLE ± (IN)	SQUARE (IN)	THK (IN)	ANCHOR BOLTS DIA x LENGTH x HOOK (IN)	PROJECTION (IN)	± (IN)
4.00	0.125	7.50	0.75	8.91	0.630	0.75 x 17.00 x 3.00	3.25	N/A
4.50	0.125	7.84	0.78	9.26	0.630	0.75 x 17.00 x 3.00	3.25	N/A
4.50	0.188	7.84	0.78	9.26	0.630	0.75 x 17.00 x 3.00	3.25	N/A
5.00	0.125	8.63	0.88	9.61	0.630	0.75 x 17.00 x 3.00	3.25	N/A
5.00	0.156	8.63	0.88	9.61	0.630	0.75 x 17.00 x 3.00	3.25	N/A
5.00	0.188	8.63	0.88	9.61	0.630	0.75 x 17.00 x 3.00	3.25	N/A
6.00	0.156	9.50	0.75	10.32	0.630	0.75 x 17.00 x 3.00	3.50	N/A
6.00	0.188	9.50	0.75	10.32	0.630	0.75 x 17.00 x 3.00	3.50	N/A

Anchor Base Detail



LOAD AND DIMENSIONAL DATA

NOMINAL MOUNTING HEIGHT	70 MPH w/1.3 GUST MAX EPA[1] (SQ FT)	70 MPH MAX WEIGHT (LBS)	80 MPH w/1.3 GUST MAX EPA[1] (SQ FT)	80 MPH MAX WEIGHT (LBS)	90 MPH w/1.3 GUST MAX EPA[1] (SQ FT)	90 MPH MAX WEIGHT (LBS)	100 MPH w/1.3 GUST MAX EPA[1] (SQ FT)	100 MPH MAX WEIGHT (LBS)	110 MPH w/1.3 GUST MAX EPA[1] (SQ FT)	110 MPH MAX WEIGHT (LBS)	POLE HEIGHT	BASE OD (IN)	TOP OD (IN)	WALL THK (IN)	STRUTURE WEIGHT[2] (LBS)	MODEL NUMBER
16'-0"	3.2	100	1.9	100	1.0	100	0.5	100	0.2	100	16'-0"	4.00	4.00	0.125	33	160040404S4
	5.1	100	3.3	100	2.2	100	1.6	100	1.2	100	16'-0"	4.50	4.50	0.125	37	160045454S4
	8.7	100	6.0	100	4.3	100	3.4	100	2.6	100	16'-0"	4.50	4.50	0.188	53	160045456S4
	7.4	100	5.1	100	3.8	100	3.0	100	2.3	100	16'-0"	5.00	5.00	0.125	41	160050504S4
	9.8	100	6.9	100	5.3	100	4.1	100	3.3	100	16'-0"	5.00	5.00	0.156	50	160050505S4
	12.2	100	8.7	100	6.7	100	5.3	100	4.2	100	16'-0"	5.00	5.00	0.188	58	160050506S4
	17.9	100	13.5	100	10.5	100	8.3	100	6.8	100	16'-0"	6.00	6.00	0.156	59	160060605S4
	21.9	100	16.5	100	12.8	100	10.3	100	8.4	100	16'-0"	6.00	6.00	0.188	70	160060606S4
18'-0"	6.7	100	4.5	100	3.1	100	2.3	100	1.8	100	18'-0"	4.50	4.50	0.188	59	180045456S4
	5.6	100	3.7	100	2.7	100	2.0	100	1.5	100	18'-0"	5.00	5.00	0.125	45	180050504S4
	7.7	100	5.2	100	3.9	100	3.0	100	2.3	100	18'-0"	5.00	5.00	0.156	55	180050505S4
	9.7	100	6.8	100	5.1	100	4.0	100	3.1	100	18'-0"	5.00	5.00	0.188	65	180050506S4
	18.0	100	13.5	100	10.5	100	8.3	100	6.7	100	18'-0"	6.00	6.00	0.188	78	180060606S4
20'-0"	5.1	100	3.2	100	2.0	100	1.4	100	1.0	100	20'-0"	4.50	4.50	0.188	64	200045456S4
	4.1	100	2.4	100	1.7	100	1.2	100	0.8	100	20'-0"	5.00	5.00	0.125	50	200050504S4
	5.9	100	3.8	100	2.8	100	2.0	100	1.5	100	20'-0"	5.00	5.00	0.156	61	200050505S4
	7.6	100	5.2	100	3.8	100	2.9	100	2.2	100	20'-0"	5.00	5.00	0.188	72	200050506S4
	11.9	100	8.8	100	6.7	100	5.3	100	4.2	100	20'-0"	6.00	6.00	0.156	73	200060605S4
	14.9	100	11.1	100	8.5	100	6.7	100	5.4	100	20'-0"	6.00	6.00	0.188	86	200060606S4
25'-0"	2.1	100	0.6	100	0.0	100	0.0	100	0.0	100	25'-0"	4.50	4.50	0.188	79	+250045456S4
	6.9	100	4.9	100	3.6	100	2.7	100	2.0	100	25'-0"	6.00	6.00	0.156	90	+250060605S4
	9.1	100	6.6	100	4.9	100	3.8	100	2.9	100	25'-0"	6.00	6.00	0.188	106	250060606S4
30'-0"	5.0	100	3.4	100	2.3	100	1.6	100	1.1	100	30'-0"	6.00	6.00	0.188	127	+300060606S4

1. EPA represents the Effective Projected Area of each luminaire. Designs are limited to top mount or side-mount luminaires. Variations from sizes above are available upon inquiry at the factory. Satisfactory performance of poles is dependent upon the pole being properly attached to a supporting foundation of adequate design.
2. Structure weight is a nominal value which includes the pole shaft and base plate.
+ Pole includes factory installed vibration damper.

PRODUCT ORDERING CODES

CROSS SECTION	MODEL NUMBER	FIXTURE MOUNTING	COLOR		OPTIONS
R	200045456S4	D1	DDB	_	
R = Round	160040404S4, 160045454S4, 160045456S4, 160050504S4, 160050505S4, 160050506S4, 160060605S4, 160060606S4, 180045456S4, 180050504S4, 180050505S4, 180050506S4, 180060606S4, 200045456S4, 200050504S4, 200050505S4, 200050506S4, 200060605S4, 200060606S4, +250045456S4, +250060605S4, 250060606S4, +300060606S4	**Drill Mounting** D1 = 1 Luminaire; D2 = 2 @ 180°; D3 = 3 @ 120°; D4 = 4 @ 90°; D5 = 2 @ 90°; D6 = 3 @ 90°; **Tenon Mounting** P2 = 2.38" OD x 4.00"; P3 = 3.50" OD x 6.00"; P4 = 4.00" OD x 6.00"; P5 = 2.88" OD x 4.00"; P7 = 2.38" OD x 5.00"; PQ = 2.38" OD x 12.00"; PD = 3.00" OD x 3.00"; -- = Plain Top; P9 = Other Tenon (Contact Factory)	**Polyester Powder** DWH = White; DSS = Sandstone; BR = Burgundy; HG = Hunter Green; DNA = Natural Aluminum; DCG = Charcoal Gray; DMB = Medium Bronze; SBN = Sanded Brown; DNB = New Dark Bronze; DDB = Dark Bronze; SBK = Sanded Black; DBL = Black; DSB = Steel Blue; DTG = Dark Green; DBR = Red; SC = Special Color (Contact Factory)	**Anodized** 204 = Clear Natural; 311 = Light Bronze*; 312 = Medium Bronze*; 313 = Dark Bronze*; 335 = Black*; *Duranodic Anodize; **Brushed** SBF = Satin Brushed	See Accessories at valmontstructures.com (Please Specify with Code)

SPC7545 06/13 valmontstructures.com carries the most current spec information and supersedes these guidelines.

KIM LIGHTING

PA7R
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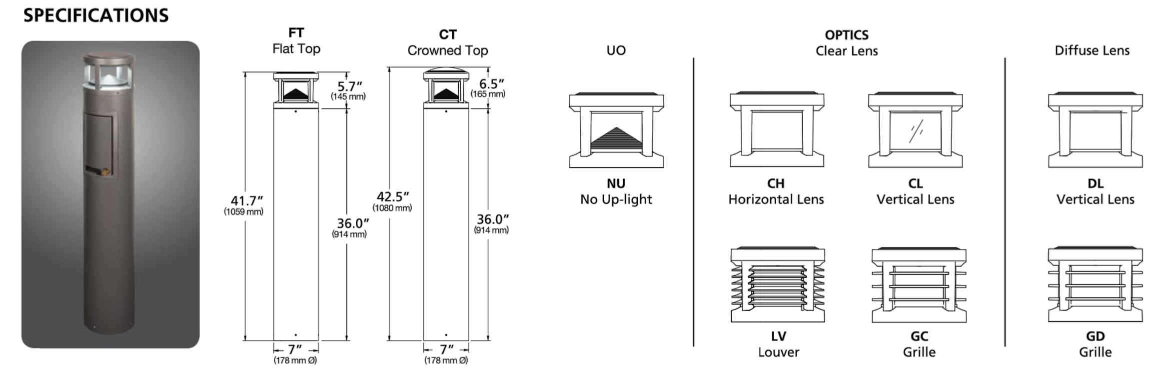
JOB Haymeadow Phase 1A TYPE B1

NOTES APPROVALS

FEATURES
- Traditional or Performance Optics
- Bluetooth enabled RGBW accent
- Integral NEMA 3R Enclosure
- Dual receptacle power panel
- PA System capability
- IP66 optical system

CERTIFICATIONS
c UL us LISTED; ida (NU configurations in 3000K and warmer CCTs only); IK10

SPECIFICATIONS



ORDERING CODE

Model	Top	Optics	Distribution	Light Engine
PA7R Pavilion 7" Ø Round	FT Flat Top	NU No Up-light	1 Type I	12L-010-5K7 14W (1000 nominal lm), 5000K, 70 CRI
	CT[1] Crowned Top	CH Clear Horizontal Lens	2 Type II	12L-010-4K7 14W (1000 nominal lm), 4000K, 70 CRI
		CL[2] Clear Vertical Lens	3 Type III	12L-010-3K7 14W (1000 nominal lm), 3000K, 70 CRI
		DL[2,3] Diffuse Vertical Lens	3HS Type III + House side shield	12L-010-AMB 14W, Amber 560 nm Monochromatic
		LV Louvers	4 Type IV	12L-020-5K7 22W (2000 nominal lm), 5000K, 70 CRI
		GC Grille with clear vertical lens	5 Type V	12L-020-4K7 22W (2000 nominal lm), 4000K, 70 CRI
		GD[3] Grille with diffuse vertical lens		12L-020-3K7 22W (2000 nominal lm), 3000K, 70 CRI
				12L-020-AMB 22W, Amber 560 nm Monochromatic

Body	Fixture Finish	Controls	Voltage	Options
24A 24" OAH, Aluminum	BL Black	SWP[1,5] SiteSync pre-commission	UNV 120-277V	EM[7] Battery Backup
42A 42" OAH, Aluminum	DB Dark Bronze	MW[4] Motion sensing (50% dim, 100% output upon detection)	120[6] 120V	LR[8] Luminous Accent
42BR-C 42" OAH, Brown Concrete	LG Light Gray	SiteSync Accessories†	277[6] 208-277V	SF[9] Single Fuse
42NG-C 42" OAH, Natural Gray Concrete	GT Graphite	SWUSB SiteSync Software on USB	347[6] 347V	DF[9] Double Fuse
42A-ROP 42" OAH, Aluminum + Dual Receptacle Outlet Panel and Cover	PS Platinum Silver	SWTAB SiteSync Windows® Tablet	480[6] 480V	
42A-ROP-L 42" OAH, Aluminum + Dual Receptacle Outlet Panel and Locking Cover	TT Titanium	SWBRG SiteSync Wireless Bridge Node		
42A-2GEB 42" OAH, Aluminum + Integral Recessed 2 Gang Electrical Box	WH White			
42A-SG3 42" OAH, Aluminum + Speaker Grille Enclosure for 3" Ø speaker	RAL RAL Color			
	CC Custom Color*			
	*Consult factory			

†PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.HubbellLighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928.

Examples: PA7R/FT/NU3/12L-020-3K7/42A/TT/SWP/UNV/LR

1 Adds .6 / 15mm to OAH (over all height).
2 CL and DL configurations shall be IK04
3 Only Available with **1** Type I or **5** Type V distributions only.
4 24'Ø typical coverage area, not Available with **CH**.
5 Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for more details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node.
6 Dedicated input voltage, required for **MW** Motions sensing.
7 -20°C min starting temperature, 90+ minute run time, output equivalent to 12L-010-#K7
8 Adds +5 watts and 1" / 254mm to overall height.
9 SF for 120, 277 and 347 input voltage, DF for 208, 240 and 480 input voltage.

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KIM LIGHTING

PA7R
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LUMINAIRE PERFORMANCE

LED #	Nominal Lumen Package	Nominal Wattage	Lens Options	Distribution	3000K Lumen	3000K B	3000K U	3000K G	3000K lm/w	4000K Lumen	4000K B	4000K U	4000K G	4000K lm/w	5000K Lumen	5000K B	5000K U	5000K G	5000K lm/w
12L	2,000	22	NU UO Optics	1	1044	0	0	0	48	1136	0	0	0	52	1164	0	0	0	54
				2	1199	0	0	0	55	1305	0	0	0	60	1336	0	0	0	62
				3	1128	0	0	1	52	1228	0	0	1	57	1257	0	0	1	58
				3HS	953	0	0	0	44	1037	0	0	0	48	1062	0	0	1	49
				4	1362	0	0	0	63	1482	0	0	1	68	1518	0	0	1	70
				5	1265	1	0	0	58	1377	1	0	0	63	1410	1	0	0	65
			CH Clear Horizontal Lens	1	1778	0	3	1	82	1935	0	3	1	89	1981	0	3	1	91
				2	1711	1	3	1	79	1862	1	3	1	86	1906	1	3	1	88
				3	1643	1	3	1	76	1788	1	3	1	82	1831	1	3	1	84
				3HS	1443	0	3	1	66	1570	0	3	1	72	1608	0	3	1	74
				4	1731	0	3	1	80	1884	0	3	1	87	1929	0	3	1	89
				5	1841	1	3	1	85	2003	1	3	1	92	2051	1	3	1	95
			CL Clear Vertical Lens	1	1852	0	4	1	85	2016	1	4	1	93	2064	1	4	1	95
				2	1984	1	3	1	91	2159	1	3	1	99	2211	1	3	1	102
				3	2062	1	3	1	95	2244	1	3	1	103	2298	1	3	1	106
				3HS	1665	0	3	1	77	1811	0	3	1	83	1855	0	3	1	85
				4	2055	0	3	1	95	2236	1	3	1	103	2290	1	3	1	106
				5	2109	1	3	1	97	2295	1	3	1	106	2350	1	3	1	108
			DL Diffused Vertical Lens	1	1639	1	3	2	76	1783	1	3	2	82	1826	1	3	2	84
				5	1721	1	3	2	79	1873	1	3	2	86	1918	1	3	2	88
			LV External Louvers	1	746	0	3	1	34	811	1	3	1	37	831	1	3	1	38
				2	814	1	3	1	37	885	1	3	1	41	907	1	3	1	42
				3	838	1	3	1	39	912	1	3	1	42	934	1	3	1	43
				3HS	605	0	3	1	28	658	0	3	1	30	674	0	3	1	31
				4	879	0	3	1	41	956	1	3	1	44	979	1	3	1	45
				5	888	1	3	1	41	966	1	3	1	45	989	1	3	1	46
			GC Grille with Clear Lens	1	1038	0	3	1	48	1130	0	3	1	52	1157	0	3	1	53
				2	1021	0	3	1	47	1111	1	3	1	51	1138	1	3	1	52
				3	1024	0	3	1	47	1114	1	3	1	51	1141	1	3	1	53
				3HS	854	0	3	1	39	930	0	3	1	43	952	0	3	1	44
				4	1109	0	3	1	51	1207	0	3	1	56	1236	0	3	1	57
				5	1037	1	3	1	48	1128	1	3	1	52	1155	1	3	1	53
			GD Grille with Diffused Lens		1036	0	3	1	48	1127	1	3	2	52	1154	1	3	2	53
					953	1	3	1	44	1037	1	3	1	48	1062	1	3	1	49

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KIM LIGHTING

PA7R
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LUMINAIRE PERFORMANCE

Current	System Watts	Line Voltage VAC	Line Voltage Hz	Amps AC 120	Amps AC 208	Amps AC 240	Amps AC 277	Amps AC 347	Amps AC 480	Min. Power Factor	Max THD (%)	Dimming Range	Source current out Min	Source current out Max	Absolute voltage Min	Absolute voltage Max
350mA	14	120-480	50/60	0.18	0.11	0.09	0.08	0.06	0.05	>0.9	20	10% to 100%	0mA	1mA	0V	10V
500mA	22			0.12	0.07	0.06	0.05	0.04	0.03							

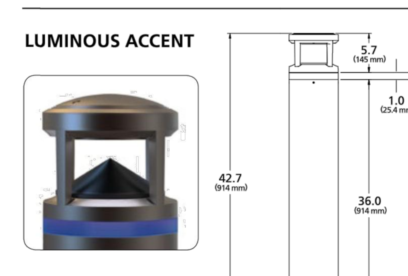
(Electrical Characteristics: Current through Max THD; Dimming: Dimming Range through Absolute voltage)

TM-21 LIFETIME CALCULATION

Ambient Temp.	0	25,000	TM-21-11 36,000	50,000	100,000	Calculated L_{70} (hours)
25°C / 77°F	100%	98%	97%	95%	90%	'60khrs
40°C / 104°F	100%	98%	97%	95%	90%	

(Operating Hours)

LUMINOUS ACCENT



The Luminous Accent option adds an additional 1" / 25.4mm to the overall fixture height and may be controlled via wired DMX RDM or Bluetooth wireless. The Luminous Accent shall be IK08.

HUBBELL LIGHTING RGBW REMOTE APP

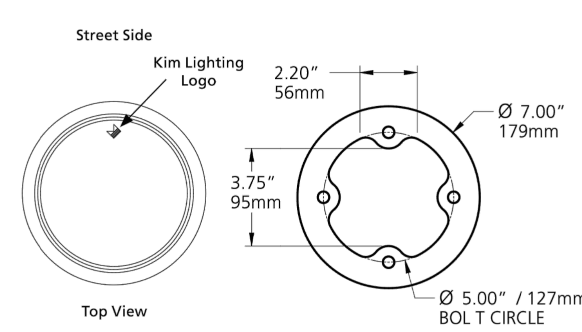
The Hubbell Lighting RGBW Remote application may be downloaded free of charge from the Apple App Store or Google Play.

- Color selection and adjustment.
- Camera function for color matching.
- Intensity slider for dimming/ramping up.
- Save and rename up to 10 presets.
- Group and rename fixtures.
- Fixture is password protected, refer to instructions to set unique password.

MOUNTING

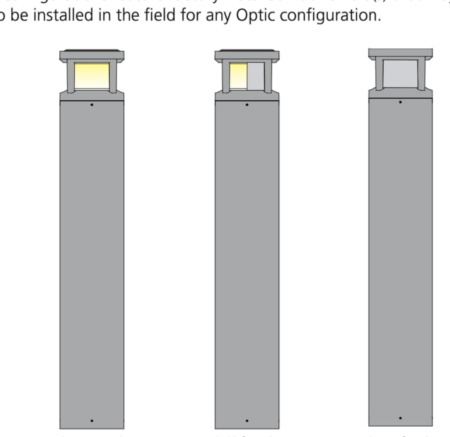
Aluminum Body

Once attached to base mounting plate, fixture may be rotated 20° in either direction and secured with set screws at base of the bollard body. KIM Lighting logo indicates 'street side' output.



SHIELDING

HS configurations feature factory installed 180° shield(s) that may also be installed in the field for any Optic configuration.



Kim Lighting reserves the right to change specifications without notice.

KIM LIGHTING

PA7R
Pavilion™ Bollard kl_pa7r_spec.pdf

SPECIFICATIONS

Housing:
- Castings shall be low copper aluminum alloy die-cast.
- Gaskets shall be molded silicone to prevent harmful ingress to the lamp and driver compartments.
- Optical system shall be IP66 rated.

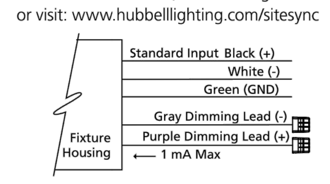
Shaft:
- Aluminum shaft(s) shall be .125" thick extruded aluminum 6061 alloy.
- Concrete shaft(s) shall conform to current specifications for "Portland Cement." ASTM C150, Type I or II. Aggregates shall meet current requirements of "Specifications for Concrete Aggregates," ASTM C33. Water shall be clean and free from deleterious amounts of silt, oil, acids, alkalies or organic materials. Wire for reinforcement shall conform to ASTM A185. Steel for lugs and plates shall conform to ASTM A36, or A283 grade D.
- Concrete shaft(s) shall be medium sand-blasted with anti-graffiti sealer and material color shall be integral to the concrete mix.
- Concrete shaft(s) shall be cured to allow for completion of the hydration process, and result in a 28 day compressive strength of not less than 4,500 psi.
- Concrete shaft(s) shall be cast from fiberglass molds used to insure uniform parts. Mold parting lines maybe slightly visible in finished parts.

Optics:
- U0 configurations shall have an optically clear flat tempered glass lens, all other configurations shall have either an optically clear or high transmission diffused acrylic lens.
- Maximum surge current shall be 20KA and shall fail open at end of life to prevent harm to the electrical components from uncontrolled or excess incoming power
- Driver shall be rated for -40°C environment

Bluetooth:
- The Integral module shall enable the adjustment of the Luminous Accent to dim or change color to the desired setting when paired with Hubbell Lighting RGBW Remote App via celluar/tablet device.
- The integral module shall be compatible with Bluetood Low Energy (BLE) or Bluetooth Smart mobile devices operating on iOS8 or Android Gingerbread operating systems or newer.

DMX:
- 6 wires: Red (DMX+), Yellow (DMX-), Brown (DMX Ground), Black (Voltage), White (common), and Green (Ground)
- Single DMX universe with six slots/addresses of virtual control which are pre-programmed at the factory:
  - DMX slot/address 1 = red
  - DMX slot/address 2 = blue
  - DMX slot/address 3 = green
  - DMX slot/address 4 = white
  - DMX slot/address 5 = X tilt, a 127 means do nothing, a value between 1-63 means left, a value between 192-254 means right
  - DMX slot/address 6 = Y tilt, a 127 means do nothing, a value between 1-63 means up, a value between 192-254 means down
- Fully DMX RDM compatable.

Controls
- Standard fixtures dimming range shall be from 10% to 100% and be compatible with 0-10V, user-defined, control devices. (Wiring illustration)
- Optional motion sensor shall be capable of detecting motion 360° around the bollard. When no motion is detected for the specified time, the sensor wattage to factory preset level, reducing the light level accordingly. When motion is detected by the sensor, the bollard shall return to full wattage and full light output. Please contact KIM Lighting if project requirements vary from standard configuration.
- Pavilion may be specified with SiteSync™ wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7. For more details, see ordering information or visit: www.hubbelllighting.com/sitesync



Electrical:
- High temperature fuse holders factory installed inside the fixture housing. Fuse is included.
- Battery Backup shall have an operating range of -20°C to 50°C with a typical recharge time of 32 hours.

Installation
- Aluminum shaft configurations shall have four 3/8" x 10" x 2" zinc plated L-hook anchor bolts shall to be installed with an included template. Nuts and washers shall be provided to level and secure the mounting plate to the anchor bolts.
- Aluminum shaft configurations shall have a mounting plate shall be able to be rotated 20° in either direction during installation for aiming adjustment.
- Concrete shaft configurations shall have four steel mounting tabs for installation on four 1/2" x 10" + 2" zinc electroplated L-hook anchor bolts. Each anchor bolt is supplied with two nuts, two washers, and a rigid pressed board template.
- Concrete shaft configurations shall be palletized with adequate hold-downs to prevent load movement in transit.

Finish:
- Fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powder coat.
- Standard colors include (BL) Black, (DB) Dark Bronze, (GT) Graphite, (PS) Platinum Silver, (LG) Light Gray, (TT) Titanium, (WH) White, and (CC) Custom Color (Include RAL#).

Certifications and Listings:
- UL 1598 Standard for wet locations for Luminaires.
- UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products.
- CSA C22.2#250.0 Luminaires.
- RoHS compliant.
- IP66 rated.
- IDA approved, 3000K and warmer CCTs only.

Caution:
- Fixtures must be grounded in accordance with national, state and/or local electrical codes, Failure to do so may result in serious personal injury.

Warranty:
- For full warranty see http://www.hubbelllighting.com/resources/warranty

Bluetooth® DMX

ANDROID APP ON Google play | Download on the App Store

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HAYMEADOW FILING 1
ACCESS & INFRASTRUCTURE PLANS

Current Issue: 100% Construction Documents

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FOR AGENCY REVIEW	09.14.18
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Sheet Title: ELECTRICAL LIGHTING FIXTURE CUTSHEETS

Date:	02/20/19
Designed:	TMM
Reviewed:	TMM
Project No:	10011.00

Sheet No: E0.03

Scale: As Shown

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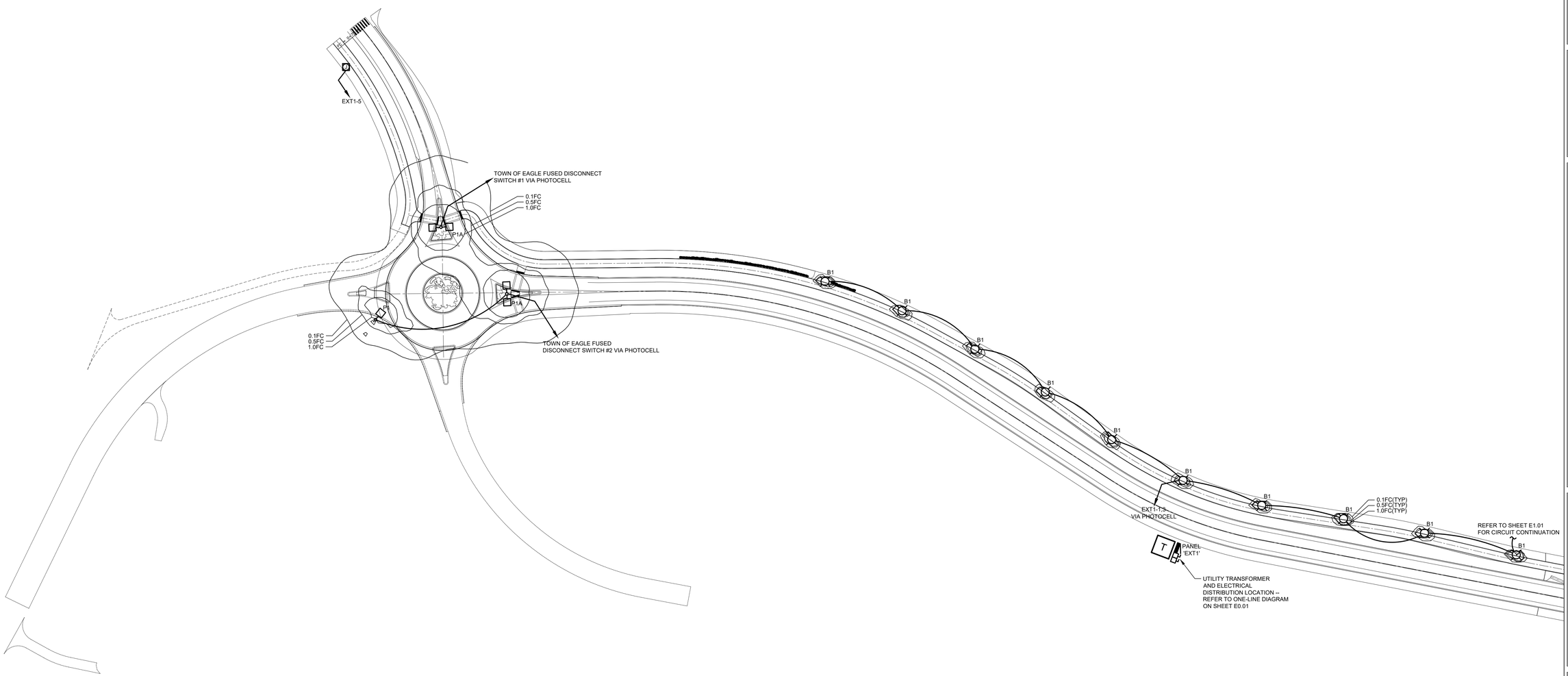
NOTES:

1. CIRCUITING LINES ARE SHOWN TO DEPICT CIRCUIT/FIXTURE GROUPINGS ONLY, NOT INTENDED CONDUIT ROUTING. REFER TO CIVIL DRAWINGS FOR CONDUIT ROUTING.

2. FOR ALL EXTERIOR CONDUCTOR SPLICES IN JUNCTION BOXES, PULL BOXES, OR IN LIGHTING FIXTURE POLES, PROVIDE WEATHERPROOF SPLICE KIT OR WATERPROOF WIRENUTS. MAKE CONNECTIONS OR SPLICES TO ENSURE THAT NO METAL CONDUCTOR IS EXPOSED TO CORROSION.



1 ELECTRICAL SITE PLAN WEST

SCALE: 1" = 60'-0"

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Sheet Title:
ELECTRICAL SITE PLAN WEST

Date:	02/20/19
Designed:	TMM
Reviewed:	TMM
Project No:	10011.00

Sheet No:
E1.01

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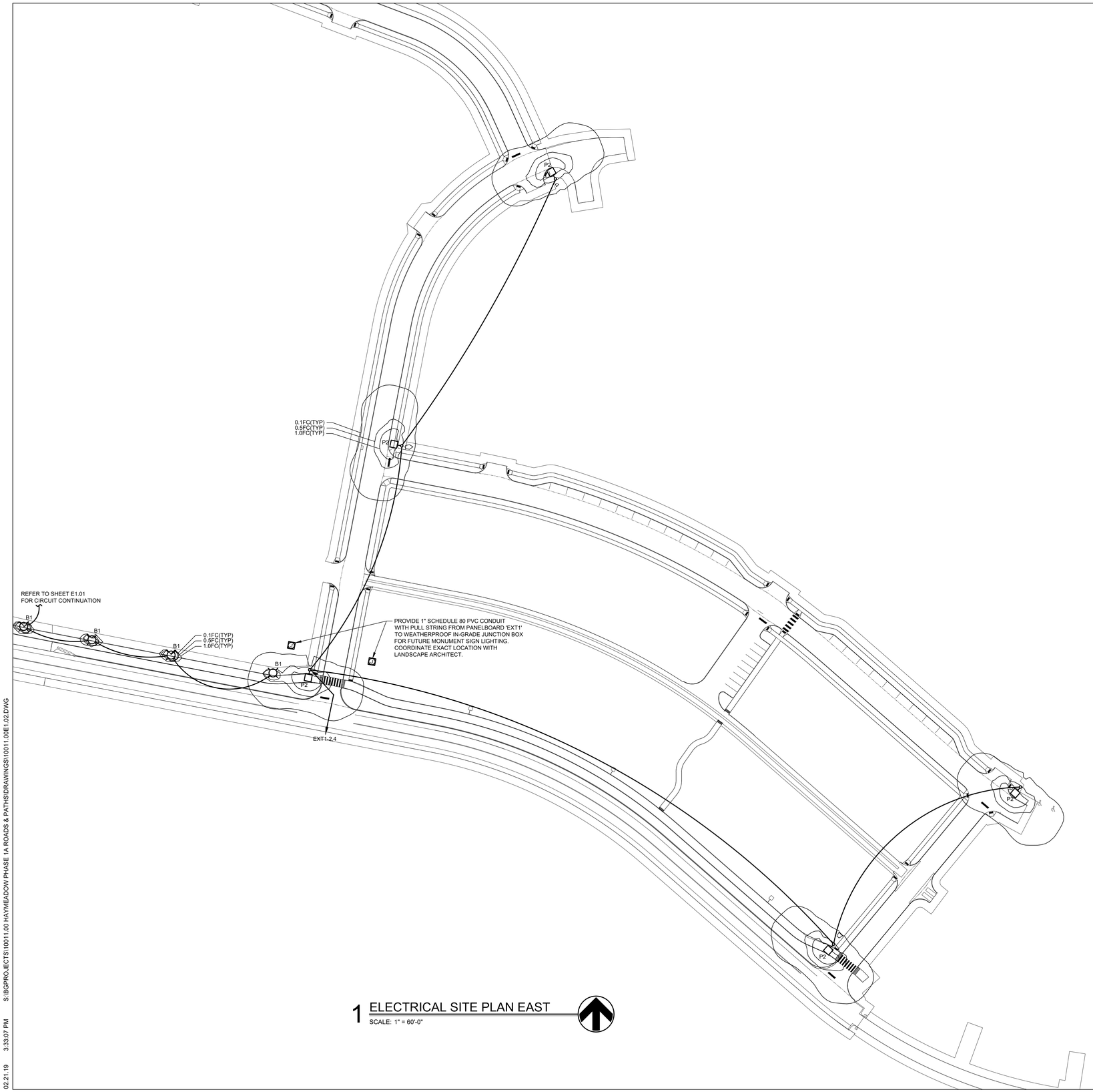

1 ELECTRICAL SITE PLAN EAST

SCALE: 1" = 60'-0"

NOTES:

1. CIRCUITING LINES ARE SHOWN TO DEPICT CIRCUIT/FIXTURE GROUPINGS ONLY, NOT INTENDED CONDUIT ROUTING. REFER TO CIVIL DRAWINGS FOR CONDUIT ROUTING.
2. FOR ALL EXTERIOR CONDUCTOR SPLICES IN JUNCTION BOXES, PULL BOXES, OR IN LIGHTING FIXTURE POLES, PROVIDE WEATHERPROOF SPLICE KIT OR WATERPROOF WIRENUTS. MAKE CONNECTIONS OR SPLICES TO ENSURE THAT NO METAL CONDUCTOR IS EXPOSED TO CORROSION.

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RESPONSE TOWN COMMENTS	02.20.19

Sheet Title:

ELECTRICAL SITE PLAN EAST

Date:	02/20/19
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Project No:	10011.00

Sheet No:

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