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February 18, 2020

Town of Erie, Engineering Division
P.O. Box 750
645 Holbrook Street
Erie, Colorado 80516

RE: OUTLOOK AT NINE MILE DRAINAGE REVIEW

Dear Engineering Division:

We have reviewed the Outlook at Nine Mile submittal received on February 10, 2020. The submittal included a Phase III Drainage Report for Outlook Nine Mile, Construction Plans for Outlook at Nine Mile, and a Site Plan for Outlook at Nine Mile all revised January 27, 2020, by Harris Kocher Smith. The resubmittal also included a response to comments letter from Norris Design, dated January 31, 2020. We have the following comments to offer:

Phase III Drainage Report:

1. The following comments relate to the design of the detention pond:
 - a. Updated the water surface elevations in the text as needed based on the comments below.
 - b. We understand that the micropool water surface elevation was lowered to be 4" below the invert of the trickle channel as requested. This adjustment must also be accounted in the UD-Detention spreadsheet by adjusting the elevations or stages relative to the stage-storage curve. Since the lowest water quality orifice will be lowered 4" to match the micropool elevation, the stage/depth will increase. To maintain the required WQCV and drain time with a 4" higher depth/head, smaller orifice sizes will likely be required. Revise the design as needed.

Construction Plans

2. On the Storm Sewer Profiles (Sheets 31-35), it appears that there is less than 2' clearance between the storm pipes and other crossing utilities. Consider using insulation boards especially when crossing water mains to prevent water from freezing.
3. On Sheet 36, show existing contours and label both the existing and proposed contours.
4. On Sheet 37, in Section C-C show the wingwalls beyond in the micropool area to show the height of these walls. Since these wingwalls will exceed a height of 2.5' high, verify and show that the grate will be installed over the wingwalls for safety.
5. On Sheet 37, in the WQCV Orifice Plate Detail specify the elevation of the lowest orifice/micropool. Also, make elevation adjustments for the Outlet Structure as needed per comment 1b above.

6. On Sheet 37, we understand that safety railings were added to the Modified Impact Stilling Basin wingwalls since they exceed 2.5' high. Provide a detail for the safety railing.

In addition, the downstream wall of the forebay is 3' high and also exceeds the maximum height of 2.5' and should be protected with a railing. A railing in this location is not desired since it would be in the main flow path and can catch debris. We recommend lowering this wall to 2.5' high if it will still provide the energy dissipation required.

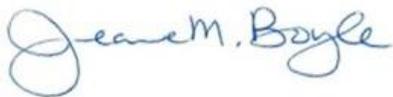
7. On Sheet 38, Section D-D shows that the elevation of the Overflow Spillway crest is proposed to be 5250.8 which is about 3.7' higher than the 100-year water surface elevation and is about 1.1' higher than the Arapahoe Road grade adjacent to the spillway (see existing spot elevations on Sheet 36). Since the pond depth exceeds 10' high from the spillway to the invert of the outlet pipe (about 13.8'), this pond could potentially be a State jurisdictional dam. We recommend lowering the spillway elevation to be at the roadway elevation (about 5249.7) since roadway embankments are typically exempt. If the spillway is not lowered, a determination must be obtained from State Dam Safety.
8. On the Detailed Grading Plans (Sheets 40 – 56), label existing and proposed contours.

Site Plan

9. See above comments and update as needed.

Let us know if you have any questions.

Sincerely,
Merrick & Company



Jeanne M. Boyle, PE, CFM



Clare Steninger, PE



Internal Memo

To: Hannah Hippely, Planning & Development - Senior Planner

From: Darren Champion, Parks and Open Space Project Coordinator

Date: February 28, 2020

Subject: Nine Mile Corner - Site Plan SP-000832-2016

Cc: Patrick Hammer, Director of Parks and Recreation
Luke Bolinger, Community Partnership and Special Projects Manager

Parks & Open Space Division staff have reviewed the subject plans and offer the following comments:

General Comments:

- Provide identification signs for all three locations (clearly specifying contact number for maintenance or other concerns). These areas will be open for use by the general public.

Landscape Comments:

Sheet 14 of 51

- Provide additional detail for the Pedestal Gas Grill (2) that are listed in List D.

Sheet 15 of 51

- The turf area should be open, remove the three SHU (Shummard Oak) from the open turf area.
- Horseshoe Pits are listed as part of the List C components. Correct the quantity to reflect the Horseshoe Pit as a quantity of one, or add an additional pit.
- An additional Horseshoe Pit, or component of choice, is required to be provided for List C.

Sheet 18 of 51

- Provide additional informational signage that describes the educational component of the display garden.

Sheet 20 of 51

- The turf area should be open, remove the three SHU (Shummard Oak) from the open turf area.
- Additional information is requested on the boulder play including, fibar play surface depth, boulder information, and confirm that all ASTM playgrounds standards (use zones, surfacing, and access etc.) are being met.

Sheet 22 of 51

- Provide additional information regarding ADA accessibility of the benches and picnic tables.

Sheet 24 of 51

- Correct Detail 6 to read HORSESHOE PIT.



Memo

To: Hannah Hippely
From: Tyler Burhenn, Civil Engineer
Date: February 20, 2020
Subject: **Nine Mile Multifamily - Engineering Comments**
CC: Joe Smith, Wendi Palmer, David Pasic, Chad Schroeder

Overall Comments

1. Provide exhibit B for review.
2. Raw Water Fee is **\$1,786,281.35** see worksheet.

Site Plan Engineering Comments

1. Sheet 18:
 - a. Update, 10' separation needed between sanitary service and two canopy trees.
Response: All trees have been adjusted to be outside 10' of water lines and to avoid any utility conflicts.
Town: Recommendation to adjust to give 10' horizontal clearance.

Construction Plans Engineering Comments

1. Sheet 30:
 - a. Add, retaining wall detail.
Response: A retaining wall detail has been added.
Town: An engineered design will be needed. Shop drawings by contractor will not be acceptable.
 - b. Section C-C Detail
 - i. Add maintenance ladder to outlet structure.

Merrick Drainage Comments:

Phase III Drainage Report:

1. The following comments relate to the design of the detention pond:
 - a. Updated the water surface elevations in the text as needed based on the comments below.
 - b. We understand that the micropool water surface elevation was lowered to be 4" below the invert of the trickle channel as requested. This adjustment must also be accounted in the UD-Detention spreadsheet by adjusting the elevations or stages relative to the stage-storage curve. Since the lowest water quality orifice will be lowered 4" to match the micropool elevation, the stage/depth will increase. To maintain the required WQCV and drain time with a 4" higher depth/head, smaller orifice sizes will likely be required. Revise the design as needed.

Construction Plans

4. On Sheet 37, in Section C-C show the wingwalls beyond in the micropool area to show the height of these walls.

5. On Sheet 37, in the WQCV Orifice Plate Detail specify the elevation of the lowest orifice/ micropool. Also, make elevation adjustments for the Outlet Structure as needed per comment 1b above.

6. On Sheet 37, we understand that safety railings were added to the Modified Impact Stilling Basin wingwalls since they exceed 2.5' high. Provide a detail for the safety railing.

In addition, the downstream wall of the forebay is 3' high and also exceeds the maximum height of 2.5' and should be protected with a railing. A railing in this location is not desired since it would be in the main flow path and can catch debris. We recommend lowering this wall to 2.5' high if it will still provide the energy dissipation required.

7. On Sheet 38, Section D-D shows that the elevation of the Overflow Spillway crest is proposed to be 5250.8 which is about 3.7' higher than the 100-year water surface elevation and is about 1.1' higher than the Arapahoe Road grade adjacent to the spillway (see existing spot elevations on Sheet 36). Since the pond depth exceeds 10' high from the spillway to the invert of the outlet pipe (about 13.8'), this pond could potentially be a State jurisdictional dam. We recommend lowering the spillway elevation to be at the roadway elevation (about 5249.7) since roadway embankments are typically exempt. If the spillway is not lowered, a determination must be obtained from State Dam Safety.

8. On the Detailed Grading Plans (Sheets 40 – 56), label existing and proposed contours.

Site Plan

9. See above comments and update as needed.



Internal Memo

To: Hannah Hippely, Planning & Development - Senior Planner

From: Darren Champion, Parks and Open Space Project Coordinator

Date: December 26, 2019

Subject: Nine Mile Corner - Site Plan SP-000832-2016

Cc: Patrick Hammer, Director of Parks and Recreation
Luke Bolinger, Community Partnership and Special Projects Manager

Parks & Open Space Division staff have reviewed the subject plans and offer the following comments:

General Comments:

- The pocket park was not reviewed as part of this referral as it is currently under revision. Comments were previously provided to the applicant from the meeting held on November 22nd 2019. Staff will complete the review of the pocket park once the revised plans have been received.

Landscape Comments:

- Staff recommend mixed grass prairie seed mixture for areas outside of 15' from trails and roads. Areas within 15' of trails and roads should be seeded with the shortgrass prairie seed mixture.
- If an area is to be shortgrass only, please identify this area within the relevant plan sheets.
- Recommended native seed mixtures can be found starting on Page 1000-22 at the following link: <https://www.erieco.gov/DocumentCenter/View/10043/Section-1000---2019-Parks-Construction?bidId>



Memo

To: Hannah Hippely
From: Tyler Burhenn, Civil Engineer
Date: December 20, 2019
Subject: **Nine Mile Multifamily - Engineering Comments**
CC: Joe Smith
Wendi Palmer
David Pasic
Chad Schroeder

Plat Comments

1. Bump out utility easements are not matching the water line on the CDs. Please verify all utility easements with the CDs of the Multifamily.

Site Plan Engineering Comments

1. Overall Comments:
2. Sheet 2:
 - a. Add sidewalk access to future commercial at midpoint along west side.
3. Sheets 6-8:
 - a. Update water line valves and bends, see Construction Plan notes.
4. Sheet 9:
 - a. On the grading plans, contours are not shown on the properties to the east and the contours do not appear to tie into the existing grades at the property line. Contours need to be shown for a minimum of 150 feet off-site.
Response: Galloway has yet to provide this survey information as it is private property. HKS is matching the existing grades along the property boundary as surveyed by Galloway.
Comment valid until shown.
 - b. Correct, street label, should be Arapahoe "Road."
5. Sheet 18:
 - a. Update, 10' separation needed between water line feeding hydrant and canopy tree.
 - b. Update, 10' separation needed between sanitary service and two canopy trees.
6. After Sheet 42:
 - a. Correct, next two sheet numbers mislabeled.

Construction Plans Engineering Comments

1. Overall Comments:
 - a. Add, Town of Erie details needed for sanitary and water.
 - b. Add, Town of Erie Engineer acceptance signature block. S&S 100-25.

- c. Please supply square footage for building footprints, irrigated xeric, irrigated turf landscape, and number of trees in native grass areas.
 - d. Correct, key map extent on all sheets.
 - e. Add, new 12" water lines proposed will need profiles, see utility report markups and construction drawing markups.
2. Sheet 3:
 - a. Add note, about all storm sewer is private unless otherwise noted.
3. Sheet 4:
 - a. Add, sidewalk access to future commercial at midpoint along west side.
 - b. Add, south signal pole at Beasley intersection. And update on all sheets.
4. Sheet 5:
 - a. Correct, street label, should be Arapahoe "Road".
5. Sheet 12:
 - a. Provide, engineering for sediment basin (e.g., elevations, hole diameter).
6. Sheet 16:
 - a. Update, existing water line at Beasley Dr does not match minor subdivision plans.
 - b. Update, all 90° bends should be replaced by two 45° bends, 3 locations total.
 - c. Shading error, sanitary service to building 1.
 - d. Connect southwest corner of water line to commercial to west.
 - e. Update, fire line valves, see note 8a.
 - f. Update, water line valves, see note 8b.
7. Sheet 17:
 - a. Correct, hash line at STA 8+85.
8. Sheets 21-23:
 - a. Fire line connections need a valve on the main. The valve layout needs to ensure that fire lines and the nearest fire hydrant are separated by a valve.
Response: A valve has been added where applicable to ensure that fire lines and the nearest fire hydrant are separated by a valve.
All fire lines (including fire services) need a valve on the service line and a valve on the main line. Which side of the service line the main line valve needs to be on can be determine on the location of the nearest hydrant.
 - b. All water line tees need three valves, except those for hydrants. 3 locations.
 - c. Why are water service lines upsized to 2", 5' after meter? Upsize tap sizes.
9. Sheet 22:
 - a. What is crossing at STA 22+98?
 - b. Information needed at crossing STA 24+29.
10. Sheet 23:
 - a. Callout arrow does not align, STA 5+00.
 - b. Missing station identification for domestic tap, STA 4+76.
 - c. Show irrigation tap north of building 13.
11. Sheets 24-28:
 - a. Add note, about all storm sewer is private unless otherwise noted.
 - b. Show roof drains and inverts if connected to storm sewer.
12. Sheet 26:

- a. Missing, Storm Line O profile referenced in Sheet 29.
- 13. Sheet 29:
 - a. Correct, slopes and elevations shown as “???”.
 - b. FL info does not match sheet 30, STA 1+14.00.
 - c. FL info does not match sheet 30, STA 3+20.10.
 - d. Missing, basin overflow. Detail also needed.
 - e. Add, riprap on north side of forebay.
 - f. On sheet 29, retaining walls for the pond are being shown directly over storm lines.

Response: The storm line has been revised to not conflict with the pond walls.

A wall is still over Storm Line O and the wall and footers are not shown on the profile.

- g. Correct, two fences shown on south side of basin.
 - h. Add, profiles not shown for A1 to forebay.
 - i. Add, fence around outlet structure.
 - j. Missing, show required 1' of freeboard.
 - k. Update, maintenance access to be class 6 road base material.
 - l. Recommend, gate on maintenance access. Access will be adjacent to heavily foot trafficked path.
14. Sheet 30:
 - a. Confirm, all elevations on all details.
 - b. Add, overflow detail.
 - c. Add, retaining wall detail.
 - d. Add, access detail.
 - e. Add, trash rack detail.
 - f. Section A-A Detail
 - i. RCP is going through retaining wall, show this on profile.
 - ii. Update, Storm Line A profile referenced on sheet 25 does not show proper extent of Storm Line A to forebay.
 - iii. Add, riprap on to detail.
 - iv. Trickle Channel Invert does not match sheet 29.
 - g. Section B-B Detail
 - i. Add, rebar to detail.
 - h. Section C-C Detail
 - i. Remove, safety rack. This will help with maintenance of trash rack and will not be needed if fence is in place around outlet structure.
 - ii. Trickle Channel Invert does not match sheet 29.
 - iii. Redesign, mircopool. The current design does not allow the mircopool to function as intended. The trash rack and orifice plate need to be extended to the bottom of the structure. Why is the west compartment of the structure filled with concrete? The added concrete could be redesigned or removed entirely.
 - iv. Add, rebar to the structure.
 - i. Water Quality Outlet Structure Plan Detail
 - i. Add, top space between orifice plate and trash rack needs to be concrete to prevent trash from falling in between.
 - ii. Add, rebar.
 - j. Trash Rack Notes

- i. Update, trash rack to aluminum bar grate with larger opening sizes.
The Town is having problems with the well screens clogging.
15. Sheet 31:
 - a. Update, FL 5260.71 is a low point.
16. Sheets 33-34, 39-40, 43-44, 47:
 - a. On the grading plans, contours are not shown on the properties to the east and the contours do not appear to tie into the existing grades at the property line. Contours need to be shown for a minimum of 150 feet off-site.
Response: Galloway has yet to provide this survey information as it is private property. HKS is matching the existing grades along the property boundary as surveyed by Galloway.
Comment valid until shown. Can use LIDAR data if survey level data is shown on site boundaries.
17. Sheet 48-51:
 - a. Add, legend.
 - b. Add, radiuses.
18. Sheet 52:
 - a. Add, pavement direction arrows on the egress onto Arapahoe Rd.

Drainage Report Phase III Engineering Comments

1. General Comments.
 - a. Need O&M plan, see 100-39 of Standards and Specs.
 - b. Need Design Standards Form, see 100-39 of Standards and Specs.
 - c. Provide comment that addresses offsite runoff.
2. Page 7:
 - a. E, Need to discuss wetlands.
 - b. F, No appendix G attached.
3. Page 8:
 - a. G, No appendix G attached.
 - b. H, Will the detention basin be owned/maintained by Metro district or site owner?
4. Page 16:
 - a. No appendix F.

Drainage Comments Provided by Merrick dated 12/12/2019

Phase III Drainage Report:

2. It appears that the southern boundary of Basin OS-3 is along the edge of curb. However, from the contours it appears the basin divide should be located further north along the top edge of the detention pond retaining wall. Revise runoff and other sizing calculations with corrected areas for Basins M and OS-3.

3. It appears there is an area at the northwest portion of the site (Tract F) that was not included in runoff analysis neither for the Outlook at Nine Mile nor the overall planned development. Clarify how runoff from this area will be managed.

4. Basins H and K must be subdivided to accurately estimate the runoff tributary to Inlets D1 and F1, respectively. Also, provide sizing calculations for inlets D1 and F1 in Appendix D.

5. On the Drainage Plan and in the calculations, include design points at Inlet A12 in Basin A and Inlet C2 in Basin N. These design points will represent the upstream ends of storm sewer line A and line C, respectively, and should have designated design points labeled.

6. In the Rational Method calculations, Inlets C1 and C2 are not shown as line items like other inlets. Identify these inlets in the Rational Method calculations.

7. Sizing for Inlet A10 only considered runoff from Basin F (1.7 cfs in the 100-year event). From the Rational Method calculations, total surface runoff is 3.6 cfs from Basins F and C. Revise inlet sizing to account for the full tributary runoff to Design Point 1. Revise other calculations and construction plans as necessary.

8. Inlet sizing for Inlet A1 (Basin M) shows the major storm event flow as 6.2 cfs. This does not match the value of 5.1 cfs from the Rational Method calculations at this design point. Additionally, the proposed 10' Type R inlet does not have sufficient capacity to capture the 100-year storm event which contradicts the text. Resize the sump inlet to capture the full major storm event.

9. In Appendix D, provide a schematic plan view for the StormCAD analysis. On the StormCAD profiles, the labels are difficult to read since they overlap. Reposition labels so manhole and pipe information are easily discernable.

10. The full flow capacities, velocities, and resulting travel times for storm pipe flows used in the Rational Method calculations are incorrect compared to normal depth calculations. Therefore, the combined Rational Method flow values and flows used in the StormCAD analysis are also incorrect. Revise using appropriate values based on normal depth calculations.

11. The following comments relate to the design of the detention pond: a. The water surface elevations in the text do not match those shown on Sheet 30 of the Construction Plans. Revise as necessary to match.

c. Although referenced in the text, no detention pond sizing calculations were provided in Appendix D. Provide calculations including sizing of water quality and excess urban runoff volume (EURV) orifices and 100-year restrictor plate.

d. Provide sizing calculations for the forebay and trickle channel.

e. As shown on Sheet 29 in the Construction Plans, the fence along the maintenance access trail into the pond must be extended until the height of the retaining wall is less than 2.5' high.

Construction Plans

12. There are several missing references on the storm sewer plan and profile drawings (Sheets 24-28). For example, on Sheet 24, a callout states “Storm Line H See Sheet X” when it should reference Sheet 28. Revise all sheets to provide accurate references to other sheets and details.
13. On Sheet 24 on the Storm Line A profile, fix the storm sewer pipes to shown them connected to Inlet A7.
14. On Sheet 25 on the Storm Line A profile, fix the downstream pipe to show it connected to Inlet A9.
15. On Sheets 25 and 26, Inlets A12 and B9, respectively, are specified as a “Modified Inlet Type R”. Provide details on how these inlets will be modified. Inlet B8 may also need to be modified due to the skew of the outlet pipe.
16. On Sheet 30, it appears that all of the elevations are approximately 3.8’ lower than corresponding elevations on other sheets. For example, the invert of the pipe to the forebay is 5238.47 on Sheet 30 and 5242.30 on Sheet 24. Clarify which elevations are correct and revise plans as necessary.
17. On Sheet 30, the Water Quality Outlet Structure Profile shows the invert of the trickle channel and the micropool water surface elevation at 5236.18. The trickle channel invert is required to be a minimum of 4” above the micropool elevation for initial surcharge depth. Revise design as necessary.
18. On Sheet 30, the maximum height of the wing walls at the forebay (i.e., Modified Impact Stilling Basin) is 5.5’ which exceeds the maximum allowable of 2.5’. Provide a railing or safety grate where the walls exceed 2.5’ high.

Site Plan

19. See above comments and update as needed.

Utility Report Engineering Comments

1. Overall Comments:
 - a. Add, page numbers.
 - b. Verify the acreage for the multi-family site are correct on all documents. Some of the plans provided list as 11.65 acres while others note 12.64 acres.
2. Correct dwelling unit density to 2.79 persons per unit, per the Town’s standards. Submit revised calculations.
3. Fire flow demand was calculated, based on 2018 International Fire Code, as 2125 gpm for a two-hour duration. Based on ISO criteria, the fire flow demand should be rounded up to the nearest 500 gpm – in this case 2500 gpm. Rerun the fire flow scenario with this fire flow demand and using the hydraulic grades (Item 5) and Hazen -Williams coefficient (Item 6) discussed below.

4. Service tap, meter, and service line all need to be the same size. Upsizing the service line downstream of the meter will not be allowed.
5. Provide 12-inch water mains between northern offsite connections and first tee. After the tee, the main sizes can be reduced to 8-inch. Provide connection to the 12-inch offsite main in the southwest corner of the site. Refer to marked-up Utility Plan and Construction Drawings (enclosed).
6. The flow test information provided is for a fire hydrant in Lafayette and therefore irrelevant. Collect flow test information from a fire hydrant located within the Town of Erie Water System. Use the following hydraulic grades at the development connection points and provide updated hydraulic modeling results.

Connection Point	Maximum Day HGL	Peak Hour HGL
Beasley Drive & Arapahoe Road	5418.1 feet MSL	5406.1 feet MSL
Safeway Shopping Plaza & Arapahoe Road	5417.8 feet MSL	5405.8 feet MSL

7. What Hazen-Williams coefficient has been used in the hydraulic model? The value should be C= 120. Provide evidence of the Hazen-Williams value used.
8. Revise service lines to match the Town’s specifications. Per the Town’s Standards (Section 600), for all service lines 3/4-inch through 2 inches, seamless copper tube, designated as “Type K” (soft), shall be used.
9. Include relevant Town’s standard detail drawings for water and sanitary sewer utilities in the construction drawing set.
10. Revise wastewater flow projections to reflect the Town’s typical population density, i.e. 2.79 persons per dwelling unit.
11. Provide tabulated pipe capacity and flow velocity calculations for the onsite sanitary sewer. Use a Manning’s coefficient of 0.012 and indicate distinct flow contributions from services.
12. Avoid manhole and sewer depths greater than 15 feet deep. Try 1% slope between manhole A2 and manholes A5 and C3; refer to marked-up construction drawings. Adjust services accordingly.
13. Page 9:
 - a. “No wastewater modeling required because anticipated less than Master Report”. This needs to be modeled.
 - b. “Future development of water and/or sanitary infrastructure and service stubs have been incorporated within the design.” Future stubs have not been incorporated.

Stormwater Quality Permit Review Comments

STORMWATER QUALITY PERMIT APPLICATION COMMENTS:

- Should be submitted and issued prior to the start of construction activities (this includes all required items (Final Plat, SWMP & ECP, Control Measures Cost Opinion Worksheet, Performance Security, and Digital Permitted Area)

SWMP COMMENTS:

- Must be submitted for review prior to issuance of SWQ permit

CONSTRUCTION PLAN/EROSION CONTROL PLAN COMMENTS:

- Silt fence should not be installed perpendicular to contours
- ECP should include directional flow arrows.

DRAINAGE REPORT COMMENTS:

- Should include all required Appendices as required in Standards and Specs:
 - Project Stormwater Quality Design Standards Form
 - Operations and Maintenance Section

PLAT COMMENTS

- Add the Following Note:
 - The owners of the lands described herein are responsible for the maintenance and operation of drainage easements shown hereon and related facilities, as provided in the Town of Erie Engineering Standards and Specification, as amended. The owners grants the Town of Erie a perpetual right of ingress and egress from and to adjacent property to inspect, maintain, operate and reconstruct the drainage easements and related facilities covered by the Town of Erie Municipal Code, as amended; and to inspect, maintain, operate and reconstruct the drainage easements and related facilities, when the owner(s) fail to adequately maintain such drainage easements and related facilities, which maintenance, operation and reconstruction shall be at the cost of the owner(s).

GENERAL NOTES – CONSTRUCTION

1. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST "STANDARDS AND SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS" BY THE TOWN OF ERIE. COPIES OF THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS MAY BE OBTAINED FROM THE TOWN OF ERIE WEB SITE. CONTRACTOR SHALL HAVE A SET ON SITE AT ALL TIMES.
2. THE OWNER SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE TOWN OF ERIE ENGINEERING STAFF PRIOR TO THE START OF CONSTRUCTION. THOSE IN ATTENDANCE SHALL INCLUDE THE OWNER, HIS ENGINEER, THE TOWN OF ERIE ENGINEERING STAFF, REPRESENTATIVES OF THE CONTRACTORS AND OTHER AFFECTED AGENCIES. PLANS SIGNED AND ACCEPTED BY THE TOWN OF ERIE WILL BE DISTRIBUTED AT THE PRECONSTRUCTION MEETING. CONTRACTOR SHALL HAVE (1) COPY OF THE SIGNED PLANS ON SITE AT ALL TIMES.
3. THE TOWN OF ERIE, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT. THE OWNER AND DESIGN ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT. REPORT ALL DISCREPANCIES TO THE DESIGN ENGINEER IMMEDIATELY.
4. PRIOR TO BEGINNING THE WORK, THE CONTRACTOR SHALL OBTAIN ANY/ALL WRITTEN AGREEMENTS FOR INGRESS AND EGRESS TO THE WORK SITE FROM ADJACENT PRIVATE PROPERTY OWNERS. A COPY OF ALL AGREEMENTS SHALL BE PROVIDED TO THE TOWN. ACCESS TO ANY ADJACENT PRIVATE PROPERTY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
5. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF ERIE ENGINEERING STAFF. THE TOWN RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO TOWN STANDARDS AND SPECIFICATIONS. INSPECTIONS AND ONSITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE BY THE TOWN ENGINEERING STAFF OF THE CONTRACTORS' CONTRACTUAL COMMITMENT. REQUESTS FOR INSPECTION BY THE TOWN OF ERIE SHALL BE MADE BY THE CONTRACTOR A MINIMUM OF TWENTY- FOUR (24) HOURS IN ADVANCE.
6. CONSTRUCTION WATER IS AVAILABLE TO THE CONTRACTOR AS ESTABLISHED IN THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE TOWN OF ERIE REGARDING CURRENT REGULATIONS, FEES AND REQUIRED AGREEMENTS RELATED TO THE PROVISION OF CONSTRUCTION WATER.
7. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH THE AFFECTED UTILITY COMPANIES AND SHALL NOTIFY THE UTILITY NOTIFICATION CENTER, PHONE NUMBER 811, THREE (3) BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION.
8. UTILITIES IN THE AREA OF CONSTRUCTION ARE APPROXIMATE ONLY. THEY HAVE BEEN LOCATED FROM FIELD INVESTIGATION AND THE BEST AVAILABLE UTILITY RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION AND REPAIR OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL CONTACT ALL RESPECTIVE UTILITIES AND HAVE ALL UTILITIES FIELD-LOCATED PRIOR TO CONSTRUCTION. IF ANY UNKNOWN SUBSURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE TOWN OF ERIE ENGINEERING STAFF AND DESIGN ENGINEER PRIOR TO PROCEEDING.
9. THE CONTRACTOR SHALL NOTIFY TOWN OF ERIE ENGINEERING STAFF OF ANY PROBLEM IMPACTING WATER AND WASTE WATER FACILITIES THAT WOULD POTENTIALLY REQUIRE A VARIANCE FROM THE APPROVED PLANS AND SPECIFICATIONS. ANY VARIANCE FROM THE APPROVED DOCUMENTS SHALL BE AT THE SOLE DISCRETION OF THE TOWN OF ERIE ENGINEERING STAFF.
10. CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE SPECIFICATIONS AND PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
11. AS-BUILT DRAWINGS AS REQUIRED IN THE SPECIFICATIONS, ARE TO BE SUBMITTED BY THE OWNER/DEVELOPER PRIOR TO INITIAL ACCEPTANCE OF THE CONSTRUCTION.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ANY EXISTING SIGNS, STRUCTURES, FENCES, ETC., ENCOUNTERED ON THE JOB AND RESTORING THEM TO THEIR ORIGINAL CONDITION.
13. THE CONTRACTOR IS RESPONSIBLE FOR:
 - A. NOTIFYING THE TOWN OF ERIE UTILITY CUSTOMERS OF POTENTIAL SERVICE OUTAGES, AND COORDINATE WITH THE TOWN OF ERIE FOR DETERMINATION OF MINIMUM TIME REQUIREMENT.
 - B. NOTIFYING THE TOWN OF ERIE ENGINEERING STAFF IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP. THE CONTRACTOR SHALL NOTIFY THE TOWN OF ERIE FORTY-EIGHT (48) HOURS PRIOR TO RESTART.
 - C. IN THE EVENT OF AN AFTER HOURS EMERGENCY, CALL 303-441-4444.
 - D. NOTIFYING THE MOUNTAIN VIEW FIRE PROTECTION DISTRICT OF ALL STREET CLOSURES AND EXISTING FIRE HYDRANTS TAKEN OUT OF SERVICE A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.
14. PRIOR TO INSTALLATION OF UTILITY MAINS, ROAD CONSTRUCTION MUST HAVE COMPLETED THE OVER LOT GRADING STAGE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. A CONSTRUCTION DEWATERING PERMIT MUST BE OBTAINED FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CPHE). GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS OR EROSION OF ADJUTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. THE USE OF ANY SANITARY SEWER TO DISPOSE OF TRENCH WATER WILL NOT BE PERMITTED. NO CONCRETE SHALL BE PLACED WHERE GROUNDWATER IS VISIBLE OR UNTIL THE GROUNDWATER TABLE HAS BEEN LOWERED BELOW THE PROPOSED IMPROVEMENTS. ANY UNSTABLE AREAS, AS A RESULT OF GROUNDWATER, ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE STABILIZED AS AGREED UPON BY THE CONTRACTOR, THE TOWN OF ERIE, AND THE DESIGN ENGINEER AT THE TIME OF THE OCCURRENCE.
16. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO RESOLVE CONSTRUCTION PROBLEMS WITH THE TOWN OF ERIE DUE TO CHANGED CONDITIONS ENCOUNTERED BY THE CONTRACTOR DURING THE PROGRESS OF ANY PORTION OF THE PROPOSED WORK. IF, IN THE OPINION OF THE TOWN OF ERIE, PROPOSED ALTERATIONS TO THE SIGNED CONSTRUCTION PLANS INVOLVES SIGNIFICANT CHANGES TO THE CHARACTER OF THE WORK, OR TO THE FUTURE CONTIGUOUS PUBLIC OR PRIVATE IMPROVEMENTS, THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR SUBMITTING REVISED PLANS TO THE TOWN OF ERIE FOR REVIEW, PRIOR TO ANY FURTHER CONSTRUCTION RELATED TO THAT PORTION OF THE WORK.
17. DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. THE TOWN OF ERIE OR THE DESIGN ENGINEER EXERCISE NO CONTROLS OVER THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS, SCAFFOLDING, FORMS OR OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR IN THE SUPERINTENDING OF THE SAME. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, THE DESIGN ENGINEER OR THE TOWN. THE TOWN OF ERIE ENGINEERING STAFF, OR ANY CONTRACTED ENGINEER, ARE NOT RESPONSIBLE FOR SAFETY IN, ON OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS RELATING THERETO.
18. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
19. REGULAR WORK HOURS ARE SEVEN (7) A.M. UNTIL SEVEN (7) P.M. OR DUSK (WHICHEVER OCCURS FIRST) OF THE SAME DAY, MONDAY THROUGH FRIDAY. THE CONTRACTOR WILL NOT PERMIT OVERTIME WORK OUTSIDE OF REGULAR WORKING HOURS OR THE PERFORMANCE OF WORK ON SATURDAY, SUNDAY OR ANY LEGAL HOLIDAY WITHOUT RECEIVING WRITTEN CONSENT FROM THE PUBLIC WORKS DIRECTOR. REQUESTS FOR WEEKEND WORK APPROVAL MUST BE SUBMITTED, IN WRITING TO THE TOWN OF ERIE NO LATER THAN WEDNESDAYS AT 3:30PM FOR SUBSEQUENT WEEKEND AND REQUESTS FOR HOLIDAY WORK APPROVAL MUST BE SUBMITTED, IN WRITING TO THE TOWN OF ERIE NO LATER THAN 7:00AM-2 BUSINESS DAYS PRIOR TO THE HOLIDAY. ALL EXPENSES INCURRED BY THE TOWN SHALL BE REIMBURSED AT A RATE TO BE DETERMINED BY DIRECTOR OF FINANCE.
20. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK. THE OWNER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPROPRIATE PERMITS FROM BOTH THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT AND THE TOWN OF ERIE FOR ANY PROJECT DISTURBING ONE ACRE OR MORE OR ANY PROJECT LESS THAN ONE ACRE THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT.
21. EACH TYPE OF CONSTRUCTION SHALL BE COMPLETED BY A CONTRACTOR THAT HAS DEMONSTRATED ACCEPTABLE QUALIFICATIONS TO THE TOWN AND IS A LICENSED CONTRACTOR IN THE TOWN OF ERIE.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL DURING CONSTRUCTION. ALL TRAFFIC CONTROLS SHALL CONFORM TO THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) LATEST EDITIONS. A PLAN SHALL BE SUBMITTED TO THE TOWN FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION.
23. ALL BACKFILL SHALL CONFORM TO THE TRENCH DETAIL LOCATED IN THE TOWN OF ERIE STANDARDS & SPECIFICATIONS.
24. THE OWNER/OPERATOR IS RESPONSIBLE FOR ENSURING THE IMMEDIATE REMOVAL OF ANY CONSTRUCTION DEBRIS OR MUD TRACKED ONTO EXISTING ROADWAYS.
25. THE CONTRACTOR SHALL REPAIR ANY EXCAVATION OR PAVEMENT FAILURES CAUSED BY HIS CONSTRUCTION.
26. THE CONTRACTOR SHALL RENEW OR REPLACE ANY EXISTING TRAFFIC STRIPING AND/OR PAVEMENT MARKINGS, WHICH HAVE BEEN EITHER REMOVED OR THE EFFECTIVENESS OF WHICH HAS BEEN REDUCED DURING HIS OPERATION. RENEWAL OF PAVEMENT STRIPING AND MARKING SHALL BE DONE IN CONFORMANCE WITH THE TOWN OF ERIE STANDARD SPECIFICATIONS.
27. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TAKE EVERY MEASURE NECESSARY TO COMPLY WITH ANY STATE, COUNTY OR TOWN DUST CONTROL ORDINANCE.
28. CONSTRUCTION VEHICLES SHALL USE TRUCK ROUTES DESIGNATED BY THE TOWN.
29. THE OWNER/DEVELOPER WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE IMPROVEMENTS FOR A MINIMUM OF TWO (2) YEARS FROM THE DATE OF INITIAL ACCEPTANCE OF THE IMPROVEMENTS BY THE TOWN OF ERIE. ANY FAILURE DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE OWNER/CONTRACTOR TO THE SATISFACTION OF THE TOWN OF ERIE AT NO EXPENSE TO THE TOWN.
30. THE SOILS ENGINEER SHALL PERFORM SUFFICIENT INSPECTIONS DURING GRADING AND CONSTRUCTION SO THAT AN OPINION CAN BE RENDERED AND VERIFIED IN WRITING AS TO COMPLIANCE WITH THE PLANS AND CODES WITHIN THE SOILS ENGINEER'S PURVIEW.

GENERAL NOTES – GRADING

1. ALL CONSTRUCTION ACTIVITIES THAT DISTURBS ONE OR MORE ACRES OF LAND, AS WELL AS ACTIVITIES THAT DISTURB LESS THAN ONE ACRE OF LAND, BUT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT, MUST COMPLY WITH BOTH LOCAL AND STATE REGULATIONS REGARDING STORMWATER DRAINAGE ON CONSTRUCTION SITES. OWNERS OR CONTRACTORS MUST OBTAIN A COLORADO STORMWATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CPHE) AND A GRADING AND STORMWATER QUALITY PERMIT FROM THE TOWN OF ERIE. CONTRACTOR SHALL:
 - A. MAINTAIN A COPY OF THE STORM WATER MANAGEMENT PLAN (SWMP) ONSITE AT ALL TIMES OR PROVIDE AN UPDATED DIGITAL COPY WITHIN TWO BUSINESS DAYS UPON REQUEST. THE SWMP MUST BE MAINTAINED AND MADE AVAILABLE TO TOWN OF ERIE INSPECTORS UPON REQUEST.
 - B. INSTALL AND MAINTAIN EROSION, SEDIMENT, AND MATERIALS MANAGEMENT CONTROL MEASURE AS SPECIFIED IN THE SWMP.
 - C. INSPECT ALL CONTROL MEASURES AT LEAST EVERY SEVEN (7) DAYS OR EVERY FOURTEEN (14) DAYS AND WITHIN TWENTY FOUR (24) HOURS AFTER ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE RUNOFF.
 - D. MAINTAIN INSPECTION AND MAINTENANCE RECORDS OF CONTROL MEASURES WITH THE SWMP. COPIES OF THESE REPORTS SHALL BE PROVIDED TO THE TOWN OF ERIE ENGINEERING STAFF.
 - E. BASED ON INSPECTIONS PERFORMED BY THE PERMIT HOLDER OR BY TOWN PERSONNEL, MODIFICATIONS TO THE SWMP WILL BE NECESSARY IF AT ANY TIME THE SPECIFIED CONTROL MEASURES DO NOT MEET THE OBJECTIVES OF THE PERMIT. ALL MODIFICATIONS SHALL BE COMPLETED AS SOON AS PRACTICABLE AFTER THE REFERENCED INSPECTION, AND SHALL BE RECORDED ON THE OWNER'S COPY OF THE SWMP.
 - F. THE OPERATOR SHALL AMEND THE SWMP WHENEVER THERE IS A SIGNIFICANT CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR DISCHARGE OF POLLUTANTS TO THE RECEIVING WATERS, OR IF THE SWMP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 - G. INSTALLATION AND MAINTENANCE OF CONTROL MEASURES SHALL BE SUPERVISED BY PERSONNEL CERTIFIED IN EROSION AND SEDIMENT CONTROL.
 - H. ALL APPROPRIATE CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF EACH CONSTRUCTION PHASE.
 - I. APPROPRIATE STABILIZED CONSTRUCTION ENTRANCES WITH VEHICLE TRACKING CONTROLS INSTALLED SHALL BE UTILIZED AT ALL TIMES TO REDUCE THE TRACKOUT OF SEDIMENT. IF NONSTRUCTURAL VEHICLE TRACKING CONTROLS ARE UTILIZED, CLEANUP OF TRACKOUT MUST OCCUR AT THE END OF EVERY BUSINESS DAY WITH CONSTRUCTION ACTIVITY OCCURRING.
2. ALL SITE GRADING (EXCAVATION, EMBANKMENT, AND COMPACTION) SHALL CONFORM TO THE RECOMMENDATIONS OF THE LATEST SOILS INVESTIGATION FOR THIS PROPERTY AND SHALL FURTHER BE IN CONFORMANCE WITH THE TOWN OF ERIE "STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS", LATEST EDITION.
3. ALL GRADING AND FILLING OPERATIONS SHALL BE OBSERVED, INSPECTED AND TESTED BY A LICENSED SOILS ENGINEER. ALL TEST RESULTS SHALL BE SUBMITTED TO THE TOWN OF ERIE ENGINEERING STAFF.
4. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATION AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AVOID ANY DAMAGE TO EXISTING FOIAGE THAT LIES IN THE PROJECT AREA UNLESS DESIGNATED FOR REMOVAL AND SHALL BE LIABLE FOR SUCH DAMAGE AT HIS/HER EXPENSE.
5. TOPSOIL SHALL BE STOCKPILED TO THE EXTENT PRACTICABLE ON THE SITE FOR USE ON AREAS TO BE RE-VEGETATED. ANY AND ALL STOCKPILES SHALL BE LOCATED AND PROTECTED FROM EROSION ELEMENTS. IF MATERIALS ARE STORED OFFSITE, A WRITTEN USE AGREEMENT BETWEEN THE PERMITTEE AND THE OWNER/OPERATOR OF ANY CONTROL MEASURES BEING UTILIZED OUTSIDE OF THE PERMITTED AREA MUST BE MADE AVAILABLE TO TOWN PERSONNEL UPON REQUEST.
6. TEMPORARY VEGETATION/STABILIZATION SHALL BE INSTALLED ON ALL DISTURBED AREAS WHERE PERMANENT SURFACE IMPROVEMENTS ARE NOT SCHEDULED FOR IMMEDIATE INSTALLATION BUT NO LATER THAN FOURTEEN (14) DAYS. SEEDING WILL BE DONE ACROSS THE SLOPE FOLLOWING THE CONTOURS. VEGETATION SHALL CONFORM TO THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS. PROJECT SCHEDULING SHOULD TAKE ADVANTAGE OF SPRING OR FALL PLANTING SEASONS FOR NATURAL GERMINATION. SEEDED AREAS SHALL BE IRRIGATED IN ACCORDANCE WITH THE TOWN OF ERIE'S STANDARDS AND SPECIFICATIONS.
7. AT ALL TIMES, A WATER TRUCK SHALL BE ON-SITE AND THE PROPERTY SHALL BE MAINTAINED AND/OR WATERED TO PREVENT WIND-CAUSED EROSION. EARTHWORK OPERATIONS SHALL BE DISCONTINUED WHEN FUGITIVE DUST SIGNIFICANTLY IMPACTS ADJACENT PROPERTY. IF EARTHWORK IS COMPLETE OR DISCONTINUED AND DUST FROM THE SITE CONTINUES TO CREATE PROBLEMS, THE OWNER/DEVELOPER SHALL IMMEDIATELY INSTITUTE MITIGATIVE MEASURES AND SHALL CORRECT DAMAGE TO ADJACENT PROPERTY.
8. FILL SLOPES SHALL BE COMPACTED BY MEANS OF SHEEPSFOOT COMPACTOR OR OTHER SUITABLE EQUIPMENT. COMPACTING SHALL CONTINUE UNTIL SLOPES ARE STABLE AND THERE IS NOT AN APPRECIABLE AMOUNT OF LOOSE SOIL ON THE SLOPES.
9. TEMPORARY CUT/FILL SLOPES SHALL ABIDE BY THE SOILS REPORT. PERMANENT SLOPES SHALL BE AS SHOWN ON PLANS.
10. DEPTH OF MOISTURE-DENSITY CONTROL SHALL BE FULL DEPTH ON ALL EMBANKMENT AND SIX (6) INCHES ON THE BASE OF CUTS AND FILLS.
11. OUTLET SIDES OF ALL STORM PIPES SHALL BE GRADED TO DRAIN AND SHALL HAVE SUFFICIENT EROSION PROTECTION.
12. THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE SITE GEOTECHNICAL ENGINEER WHEN THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING INSPECTIONS:
 - A. INITIAL INSPECTION WHEN THE PERMITTEE IS READY TO BEGIN WORK, BUT NOT LESS THAN TWO (2) DAYS BEFORE ANY GRADING OR GRUBBING IS STARTED.
 - B. AFTER THE NATURAL GROUND OR BEDROCK IS EXPOSED AND PREPARED TO RECEIVE FILL, BUT BEFORE FILL IS PLACED.
 - C. EXCAVATION INSPECTION AFTER THE EXCAVATION IS STARTED BUT BEFORE THE VERTICAL DEPTH OF THE EXCAVATION EXCEEDS TEN (10) FEET.
 - D. FILL INSPECTION AFTER THE FILL PLACEMENT IS STARTED, BUT BEFORE THE FILL EXCEEDS TEN (10) FEET.

GENERAL NOTES – ROADWAY

1. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL PREPARE THE SUBGRADE BY SCARIFYING THE UPPER ONE (1) FOOT OF THE SUBGRADE IN CUT AREAS OR AREAS WITH LITTLE OR NO FILL, UNLESS SPECIFIED IN THE SOILS REPORT. THE WORK SHALL CONFORM TO THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
3. PAVEMENT SHALL NOT BE CONSTRUCTED UNTIL ALL UNDERGROUND UTILITIES HAVE BEEN INSTALLED, TESTED AND ACCEPTED BY THE TOWN OF ERIE ENGINEERING STAFF.
4. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO SUPERVISE AND CERTIFY THAT PROPER COMPACTION HAS BEEN OBTAINED BY SUBCONTRACTORS AND AGENCIES CONCERNING UTILITY LINE BACKFILL INCLUDING, BUT NOT LIMITED TO, SEWER, WATER, ELECTRICAL, GAS AND LANDSCAPE IRRIGATION LINES AND ACCEPTED BY THE TOWN OF ERIE ENGINEERING STAFF AND THE SOILS ENGINEER.
5. STREET PAVING SHALL NOT START UNTIL:
 - A. A SOILS REPORT AND PAVEMENT DESIGN IS ACCEPTED BY THE TOWN OF ERIE ENGINEERING STAFF.
 - B. ALL STREETS ARE COMPACTED IN ACCORDANCE WITH THE SOILS REPORT AND THE TOWN OF ERIE SPECIFICATIONS.
 - C. ALL COMPACTION TEST REPORTS HAVE BEEN SUBMITTED TO THE TOWN ENGINEERING STAFF PRIOR TO PROOF ROLLS.
 - D. PROOF ROLLS ARE PERFORMED USING A LOADED SINGLE AXLE 2000 GALLON WATER TRUCK AND MONITORED BY THE TOWN OF ERIE ENGINEERING STAFF.
6. THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL UTILITY MANHOLE COVERS AND ACCESS LIDS TO GRADE.
7. ALL CONCRETE SHALL BE A MINIMUM OF CLASS B, IN CONFORMANCE WITH CDOT STANDARDS.
8. ALL CONCRETE EDGES MUST BE ROUNDED TO A FOURTH (1/4) INCH RADIUS, EXCEPT WHERE SHOWN OTHERWISE ON DRAWINGS.
9. ONE HALF (1/2) INCH EXPANSION JOINTS SHALL BE INSTALLED AT ALL CURB RETURNS, CURB CUTS AND EXISTING STRUCTURES. CONTROL JOINTS SHALL BE INSTALLED PER THE TOWNS STANDARDS AND SPECIFICATIONS.
10. BEFORE PLACING OF ASPHALT THE SUBGRADE SHALL RECEIVE A GROUND STERILANT APPLIED AT A RATE IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS.
11. THE GRADATION OF THE MINERAL AGGREGATE WILL BE GRADING SX (1/2" NOMINAL) FOR ALL TOP LIFTS AND OVERLAYS.
12. TACK COAT SHALL BE USED PRIOR TO OVERLAY, (CSS-1H), 50:50 DILUTION, 0.10 GAL/SY. ALL EDGES ABUTTING NEW PAVEMENT SHALL BE TACKED.
13. WHEN IT IS REQUIRED TO MATCH EXISTING PAVEMENT, EXISTING PAVEMENT SHALL BE SAW CUT IN A MANNER TO AFFECT A SMOOTH, VERTICAL STRAIGHT CUT EDGE. T PATCH MILLING MUST BE DONE PER STANDARD DETAILS.
14. ALL SAWCUT EDGES OF EXISTING PAVEMENT SHALL BE CLEAN AND COATED WITH TACK COAT PRIOR TO PLACING NEW PAVEMENT ADJACENT TO THE EXISTING PAVEMENT.
15. ALL ASPHALT SHALL BE ONE FOURTH (1/4) INCH ABOVE CONCRETE EDGES, MANHOLE COVERS AND ACCESS LIDS.
16. SIGNAGE AND STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE COLORADO DEPARTMENT OF TRANSPORTATION M&S STANDARDS, AND THE TOWN OF ERIE STANDARD DESIGN CRITERIA AND STANDARD CONSTRUCTION REQUIREMENTS.
17. THE PURCHASE AND INSTALLATION OF STREET NAME SIGNS SHALL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR. THE OWNER/CONTRACTOR SHALL SECURE THE APPROVAL OF THE TOWN OF ERIE ENGINEERING STAFF FOR TYPE AND LOCATION OF THE STREET NAME SIGNS PRIOR TO INSTALLATION.
18. ALL NEW ROADWAY SECTIONS SHALL HAVE SUBGRADE PREPARATION AND INITIAL ASPHALT PAVEMENT PLACED WITH A 1% CROWN. FINAL OVERLAY IS TO BE PLACED WITH A 2% CROWN. SEE DETAIL S77 IN THE "STANDARD DETAILS-STREET" FOR MORE INFORMATION.
19. DETERMINATION OF CROWN FOR CUL DE SAC PAVING SHALL BE EVALUATED ON A CASE BY CASE BASIS.

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

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811 Know what's below.
Call before you dig.

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

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OUTLOOK AT NINE MILE
GENERAL NOTES

ISSUE DATE: 11-08-2019		PROJECT #: 160602	
DATE	REVISION	COMMENTS	

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

GENERAL NOTES – SEWER

- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING SEWERS TO BE CONNECTED TO PRIOR TO CONSTRUCTION STAKING.
- CONNECTION TO EXISTING TOWN OF ERIE LINES WILL BE PERMITTED UPON INITIAL ACCEPTANCE OF THE NEW SANITARY SEWER SYSTEM. EXISTING PIPE AT THE POINT OF CONNECTION SHALL NOT BE "BROKEN OUT" UNTIL THE NEW SYSTEM IS ACCEPTED. IF CONNECTING TO AN EXISTING MANHOLE, THE NEW LINE SHALL BE PLUGGED UNTIL THE NEW SYSTEM IS ACCEPTED.
- MINIMUM VERTICAL SEPARATIONS BETWEEN ALL UTILITY PIPES SHALL BE EIGHTEEN (18) INCHES. IF VERTICAL SEPARATIONS ARE LESS THAN EIGHTEEN (18) INCHES, THE UTILITY PIPES SHALL BE REINFORCED AND PROTECTED AS REQUIRED BY CURRENT TOWN STANDARD SPECIFICATIONS.
- WATER AND SANITARY SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET. WHEN A TEN (10) FOOT SEPARATION IS NOT PROVIDED OR WHEN SEWER LINES CROSS WATER LINES WITH LESS THAN ONE AND ONE-HALF (1½) FEET OF VERTICAL SEPARATION, SEWER LINE JOINTS SHALL BE CONCRETE ENCASED. FOR PERPENDICULAR CROSSINGS, ENCASED JOINTS SHALL EXTEND TEN (10) FEET, PERPENDICULAR TO THE WATER LINE IN BOTH DIRECTIONS.
- ALL SANITARY SEWER SERVICES AND WATER SERVICES ARE TO BE TEN (10) FEET APART.
- SERVICE LATERALS SHALL EXTEND FIVE (5) FEET BEYOND RIGHTS OF WAY OR UTILITY EASEMENTS, WHICHEVER IS GREATER. THE ENDS SHALL BE MARKED BY A GREEN PAINTED WOOD POST UNTIL CURB AND GUTTER IS IN PLACE. WHEN CURB AND GUTTER IS IN PLACE THE LATERALS SHALL BE MARKED ON THE CONCRETE CURB FACE WITH AN "S" OR "X".
- THE LENGTH OF SANITARY SEWER LINE IS THE HORIZONTAL DISTANCE BETWEEN CENTER OF MANHOLE TO CENTER OF MANHOLE. THEREFORE, THE DISTANCES INDICATED ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND MANHOLE DIMENSIONS.
- SERVICE LINE CONNECTIONS TO DEAD END MANHOLES THAT HAVE NO FURTHER POSSIBILITY OF EXTENSION SHALL BE ALLOWED AND SHALL HAVE A MINIMUM DROP OF 0.75 X MAIN DIAMETER. SERVICE LINE CONNECTIONS TO IN-LINE MANHOLES ARE NOT PERMITTED. MINIMUM SERVICE LINE SLOPE; 4 INCHES=2%; 6 INCHES= 1%; 8 INCHES=0.4%.
- ALL FOUR (4) THROUGH FIFTEEN (15) INCH SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) AND SHALL BE IN ACCORDANCE WITH ASTM D-3034-SDR35, "STANDARD SPECIFICATION FOR PVC SEWER PIPE AND FITTINGS". ANY SANITARY SEWER HAVING A DEPTH IN EXCESS OF FIFTEEN (15) FEET SHALL BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
- BEDDING MATERIAL SHALL CONFORM TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- WARNING TAPE SHALL BE INSTALLED 12" MINIMUM AND 18" MAXIMUM ABOVE SEWER PIPE.
- PRECAST CONCRETE MANHOLE SECTIONS SHALL BE IN ACCORDANCE WITH ASTM C-478. MANHOLE STEPS SHALL BE POLYPROPYLENE COVERED STEEL CONFORMING TO ASTM D-4101 AND ASTMA-615. CAST IRON RING AND COVER SHALL CONFORM TO ASTM A-48.
- MANHOLES SHALL BE A MINIMUM FOUR (4) FOOT DIAMETER AND CONSTRUCTED PER THE STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL TAKE CARE TO PROPERLY SHAPE ALL MANHOLE INVERTS AND BENCHES IN ACCORDANCE WITH THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS, TO PROMOTE SMOOTH FLOW THROUGH THE MANHOLE. INVERTS OF LINES INTERSECTING AT 90 DEGREES AND AT HIGHLY DIVERGENT OR FLAT SLOPES ARE ESPECIALLY CRITICAL. MANHOLE INVERTS SHALL BE CONSTRUCTED WITH A SMOOTH TROWEL FINISH, AND BENCH FINISHED WITH A LIGHT BROOMED, NON-SKID, FINISH.
- SEWER TEES AND/OR WYES SHALL BE STAKED BY A SURVEY CREW. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS-CONSTRUCTED" LOCATION OF TEES AND WYES. ALL SERVICE LINES ARE FOUR (4) INCH UNLESS OTHERWISE NOTED.
- THE CONTRACTOR, AT THE OWNER'S EXPENSE, WILL MAKE ALL SEWER SERVICE TAPS.
- PRIOR TO BACKFILL THE TOWN OF ERIE ENGINEERING STAFF SHALL INSPECT ALL SANITARY SEWER MAINS AND SERVICE EXTENSIONS.
- MANHOLE RIMS SHALL BE SET AT AN ELEVATION RELATIVE TO THE PAVEMENT, IN ACCORDANCE WITH THE TOWN OF ERIE STANDARDS. WHETHER THE MANHOLE IS AT PAVED OR UNPAVED GRADE, A MINIMUM OF ONE (1) AND A MAXIMUM OF FOUR (4) CONCRETE RINGS SHALL BE USED TO ADJUST THE RIM ELEVATION TO FINAL GRADE. THE MAXIMUM ACCEPTABLE VERTICAL ADJUSTMENT UTILIZING CONCRETE RINGS IS EIGHTEEN (18) INCHES.
- INITIAL ACCEPTANCE OF THE NEW SANITARY SEWER MAINS IS CONTINGENT UPON COMPLETION OF ITEMS LISTED IN THE TOWNS STANDARDS AND SPECIFICATIONS.

GENERAL NOTES – STORM DRAIN

- EXCEPT WHERE NOTED, ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE, CLASS III AND SHALL CONFORM TO REQUIREMENTS OF ASTM C76. ALL RCP SHALL HAVE RUBBER GASKETED JOINTS AND SHALL CONFORM TO REQUIREMENTS OF ASTM C443, AND SHALL PROVIDE WATERTIGHT PERFORMANCE CHARACTERISTICS.
- TONGUE AND GROOVE JOINTS SHALL NOT BE ALLOWED.
- THE MINIMUM COVERAGE FOR ALL STORM DRAINAGE PIPES SHALL BE 1.5 FEET FOR CLASS III PIPE AND 1 FOOT FOR CLASS IV PIPE.
- BEDDING MATERIAL SHALL CONFORM TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- ALL MANHOLES SHALL BE CONCRETE AND CONFORM TO CDOT STANDARD M-604-20.
- THE MINIMUM MANHOLE DIAMETER SHALL BE AS SPECIFIED BELOW:

PIPE DIAMETER	MANHOLE SIZE
15" TO 18"	4' DIAMETER
21" TO 42"	5' DIAMETER
48" TO 54"	6' DIAMETER
60" AND LARGER	BOX BASE MANHOLE
- ALL STREET INLETS SHALL BE CURB OPENING TYPE R CONFORMING TO CDOT STANDARD M-604-12, EXCEPT WHERE OTHERWISE NOTED.
- ALL INLET ACCESS COVERS SHALL HAVE THE WORDS 'NO DUMPING-DRAINS TO RIVERS' AND 'STORM SEWER' CAST INTO THE COVER PER TOWN OF ERIE STANDARD DETAIL.
- ALL END SECTIONS SHALL CONFORM TO CDOT STANDARD M-603-10.
- WHERE RIPRAP OR GROUDED BOULDERS ARE CALLED FOR ON THE PLANS FOR EROSION CONTROL, IT SHALL CONFORM TO THE URBAN STORM DRAINAGE CRITERIA MANUAL SPECIFICATIONS (LATEST REVISION).

GENERAL NOTES – WATER

- AT ALL POINTS OF CONNECTION OF NEW WATER MAINS TO EXISTING MAINS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING AND VERIFYING LOCATION OF THE EXISTING LINES PRIOR TO ANY CONSTRUCTION.
- EXCEPT IN CASE OF AN EMERGENCY, VALVES ON THE TOWN OF ERIE WATER SYSTEM SHALL BE OPERATED BY OR UNDER THE DIRECTION OF THE APPROPRIATE TOWN OF ERIE PERSONNEL. THE CONTRACTOR SHALL GIVE THE TOWN OF ERIE ENGINEERING STAFF 48 HOURS NOTICE TO ARRANGE FOR OPERATING VALVES. BOTH THE CONTRACTOR AND THE APPROPRIATE TOWN OF ERIE PERSONNEL SHALL BE PRESENT WHEN THE VALVES ARE OPERATED.
- WATER AND SANITARY SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET. WHEN A TEN (10) FOOT SEPARATION IS NOT PROVIDED OR WHEN SEWER LINES CROSS WATER LINES WITH LESS THAN ONE AND ONE-HALF (1½) FEET OF VERTICAL SEPARATION, SEWER LINE JOINTS SHALL BE CONCRETE ENCASED. FOR PERPENDICULAR CROSSINGS, ENCASED JOINTS SHALL EXTEND TEN (10) FEET, PERPENDICULAR TO THE WATER LINE IN BOTH DIRECTIONS.
- ALL WATER LINES SHALL HAVE A MINIMUM OF FOUR AND ONE-HALF (4½) FEET OF COVER AND BE LOCATED A MINIMUM OF TEN (10) FEET FROM THE SANITARY SEWER AND THREE (3) FEET FROM THE EDGE OF CONCRETE CURB AND GUTTER PAN.
- CHANGES IN DIRECTION OF WATERLINE PIPE GREATER THAN ONE DEGREE SHALL REQUIRE FITTINGS IN ALL INSTANCES. AXIAL DEFLECTION AT THE JOINTS SHALL NOT BE IN EXCESS OF MANUFACTURER'S RECOMMENDATION OR IN NO CASE MORE THAN ONE DEGREE.
- WHEN IT IS NECESSARY TO DEPRESS WATER LINES AT UTILITY CROSSINGS, A MINIMUM CLEARANCE OF ONE AND ONE-HALF (1-1/2) FEET SHALL BE MAINTAINED BETWEEN OUTSIDES OF PIPE.
- DISTANCES FOR WATER LINES ARE THE HORIZONTAL DISTANCE BETWEEN THE CENTERS OF THE FITTINGS. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND FITTING DIMENSIONS.
- ALL WATER LINE VALVES SHALL BE SET ADJACENT TO THE TEE, EXCEPT FOR POINTS THAT FALL IN THE FLOW LINE OF A CONCRETE CROSS PAN. IN WHICH CASE, THE VALVE SHALL BE LOCATED SO THAT SURFACE DRAINAGE DOES NOT INFILTRATE THE VALVE BOX. VALVE BOXES SHALL BE SET AT AN ELEVATION IN ACCORDANCE WITH TOWN PAVING REQUIREMENTS.
- ALL WATER MAINS SHALL BE POLYVINYL CHLORIDE (PVC) PRESSURE PIPE UNLESS SPECIFIED OTHERWISE. NOMINAL PVC PIPE SIZES 6-INCH THROUGH 12-INCH SHALL CONFORM TO ALL REQUIREMENTS OF AWWA STANDARD C-900, PRESSURE CLASS 150 (DR18). NOMINAL PVC PIPE SIZES 16-INCH THROUGH 24-INCH SHALL CONFORM TO ALL REQUIREMENTS OF AWWA STANDARD C-905, PRESSURE CLASS 165 (DR25). ALL PVC PIPES SHALL HAVE OUTSIDE DIAMETERS EQUIVALENT TO CAST IRON PIPE.
- FIRE HYDRANT ASSEMBLY INCLUDES THE FIRE HYDRANT, SIX (6) INCH VALVE, AND SIX (6) INCH PIPE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- ALL FITTINGS SHALL BE MADE FROM DUCTILE IRON, FURNISHED WITH MECHANICAL JOINT ENDS OR INTEGRAL RESTRAINED JOINTS, AND SHALL HAVE A PRESSURE RATING OF 350 PSI.
- POLYETHYLENE WRAPPING SHALL BE INSTALLED AROUND ALL DUCTILE IRON PIPES, FITTINGS, VALVES, FIRE HYDRANT BARRELS AND ROD AND CLAMPS. THE POLYETHYLENE SHALL HAVE A MINIMUM THICKNESS OF EIGHT (8) MILS, IN ACCORDANCE WITH AWWA STANDARD C-105.
- ALL WATER LINE PIPE SHALL BE PROVIDED WITH A MINIMUM GAGE SIZE OF 12 SINGLE STRAND INSULATED COPPER WIRE. SPLICES IN TRACER WIRE SHALL BE CAPPED IN WATER PROOF GEL CAP TYPE CONNECTORS SUITED FOR DIRECT BURY APPLICATION (3M TYPE DBY-6 LOW VOLTAGE OR EQUAL). WIRE SHALL BE ATTACHED TO TOP OF WATER LINE WITH 2-INCH WIDE PVC TAPE @ 5-FT INTERVALS ALONG PIPE TRACER WIRE SHALL EXTEND TO THE SURFACE AND BE COILED IN A LOCATE BOX AT THE BACKSIDE OF EITHER EACH FIRE HYDRANT OR VALVE. UNDER THE SUPERVISION OF TOWN OF ERIE ENGINEERING STAFF, TEST SHALL BE MADE BY THE CONTRACTOR @ THE COMPLETION OF CONSTRUCTION TO INSURE THAT THE TRACER WIRES CARRY A CONTINUOUS CURRENT BETWEEN ALL ACCESS POINTS.
- WARNING TAPE SHALL BE INSTALLED 12" MINIMUM AND 18" MAXIMUM ABOVE WATER PIPE.
- BEDDING MATERIAL SHALL CONFORM TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- VALVES SHALL OPEN COUNTER CLOCKWISE. VALVES 12-INCH AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. LARGER VALVES SHALL BE BUTTERFLY VALVES.
- VALVE BOXES SHALL BE RAISED TO ONE-FOURTH (1/4) INCH BELOW GRADE AFTER COMPLETION OF SURFACE PAVING OR FINAL GRADING. VALVE BOXES IN NON-PAVED AREAS SHALL HAVE A CONCRETE COLLAR AROUND THE VALVE LID IN ACCORDANCE WITH THE DETAIL.
- ALL SERVICE LINE TAPS SHALL HAVE DOUBLE STRAP BRASS TAPPING SADDLES. (ROMAC 202B OR APPROVED EQUAL).
- ALL RESIDENTIAL WATER TAPS SHALL BE THREE-QUARTER (3/4) INCH OR AS REQUIRED BY THE CURRENT BUILDING CODE.
- ALL WATER SERVICE LATERALS SHALL EXTEND FIVE (5) FEET BEYOND RIGHT OF WAY OR UTILITY EASEMENTS, WHICHEVER IS GREATER. THE ENDS SHALL BE MARKED BY A BLUE PAINTED WOOD POST UNTIL CURB AND GUTTER IS IN PLACE. WHEN CURB AND GUTTER IS IN PLACE THE LATERALS SHALL BE MARKED ON THE CONCRETE CURB FACE WITH A "V" OR "W".
- CONCRETE THRUST BLOCKS AND/OR "MEGA-LUG" MECHANICAL RESTRAINTS ARE REQUIRED AT ALL MECHANICAL FITTINGS. THRUST BLOCKS MAY NOT BE REQUIRED IF PIPE RESTRAINT IS PROVIDED IN ACCORDANCE WITH RESTRAINED PIPE DETAIL.
- NO WORK SHALL BE BACKFILLED (INCLUDING BEDDING MATERIAL ABOVE THE SPRING LINE OF THE PIPE) UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE TOWN OF ERIE ENGINEERING STAFF.
- ONLY ONE CONNECTION TO THE EXISTING WATER DISTRIBUTION SYSTEM SHALL BE MADE UNTIL ALL HYDROSTATIC TESTING, CHLORINATION AND FLUSHING HAS BEEN COMPLETED.
- DISINFECTION AND HYDROSTATIC TESTING SHALL BE DONE IN THE PRESENCE OF A TOWN OF ERIE ENGINEERING STAFF. CONTACT THE TOWN OF ERIE DEPARTMENT OF PUBLIC WORKS, FORTY-EIGHT (48) HOURS PRIOR TO DISINFECTING AND/OR TESTING.
- DISINFECTION AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE COLORADO DEPARTMENT OF HEALTH AND THE PROCEDURE SET FORTH IN AWWA C651, "STANDARD FOR DISINFECTING WATER MAINS". THE CHLORINATION OF THE WATER LINE SHALL BE PERFORMED PRIOR TO THE HYDROSTATIC TESTING. ALL VALVES, FIRE HYDRANTS AND OTHER APPURTANCES SHALL BE OPERATED WHILE PIPELINE IS FILLED WITH THE CHLORINATING AGENT TO INSURE THAT HIGH CHLORINE CONTACT IS MADE WITH ALL INTERNAL SURFACES.
- ALL WATER LINES SHALL BE HYDROSTATIC TESTED. PRESSURE AND LEAKAGE TESTS SHALL BE CONDUCTED ACCORDING TO THE APPLICABLE SECTIONS OF AWWA C600/605 TO A MINIMUM PRESSURE OF ONE HUNDRED AND FIFTY (150) POUNDS PER SQUARE (PSI) INCH AT THE LOW POINT OF THE SECTION BEING TESTED FOR THE DURATION OF TWO (2) HOURS. THE MAXIMUM LENGTH OF LINE TO BE TESTED SHALL BE ONE THOUSAND (1,000) FEET. ALL JOINTS IN CONNECTIONS ARE TO BE WATERTIGHT WITHIN TOLERANCES ALLOWED BY THE SPECIFICATIONS IN AWWA C600/605. ANY LEAKAGE THAT IS DISCOVERED BY OBSERVATION OR TESTS SHALL BE LOCATED AND MADE WATERTIGHT BY THE CONTRACTOR. PRESSURE AND LEAKAGE TESTS SHALL NOT BE CONDUCTED UNTIL THE LINE HAS PASSED ALL REQUIRED DISINFECTION TESTS.
- INITIAL ACCEPTANCE OF THE NEW WATER LINES ARE CONTINGENT UPON RECEIVING COPIES OF:
 - WATER TRENCH COMPACTION TEST RESULTS
 - HYDRO STATIC TESTING OF 100% OF THE SYSTEM
 - HEALTH DEPARTMENT TESTS. (CHLORINE AND/OR CLEAR WATER AS REQUIRED)
- ALL METER PITS AND CURB STOPS SHALL BE PROTECTED AT THE TIME OF INSTALLATION WITH A MINIMUM OF THREE (3) T-POSTS AND ORANGE SAFETY FENCE. THE T-POST AND SAFETY FENCE SHALL REMAIN IN PLACE AND IN GOOD CONDITION UNTIL THE LANDSCAPING IS INSTALLED.
- ALL WATER VAULTS SHALL BE WATER TIGHT. CONTRACTOR SHALL SEAL VAULTS TO ENSURE SURFACE WATER DOES NOT INFILTRATE INTO THE VAULTS. VAULT LIDS SHALL BE PLACED TO ENSURE THAT SURFACE WATER DOES NOT FLOW INTO THE VAULTS.

FILE PATH: P:\16060\ENGINEERING\CD- GENERAL NOTES.DWG LAYOUT: GENERAL NOTES 2
NO SCALE
PLOTTED: THU 11/07/19 6:22:59P BY: RACHEL PATTON



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

DESIGNED BY: AEM
CHECKED BY: MSM
DRAWN BY: AEM



OUTLOOK AT NINE MILE GENERAL NOTES

ISSUE DATE: 11-08-2019		PROJECT #: 160602
DATE	REVISION COMMENTS	

SHEET NO.

3

3 OF 60

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

OWNER: PATRICK & DEBRA GONZALES
LEGAL: 10 AC TR 4114 34-1N-69 PER DEED 1434442
RECEPTION NO. 1434442

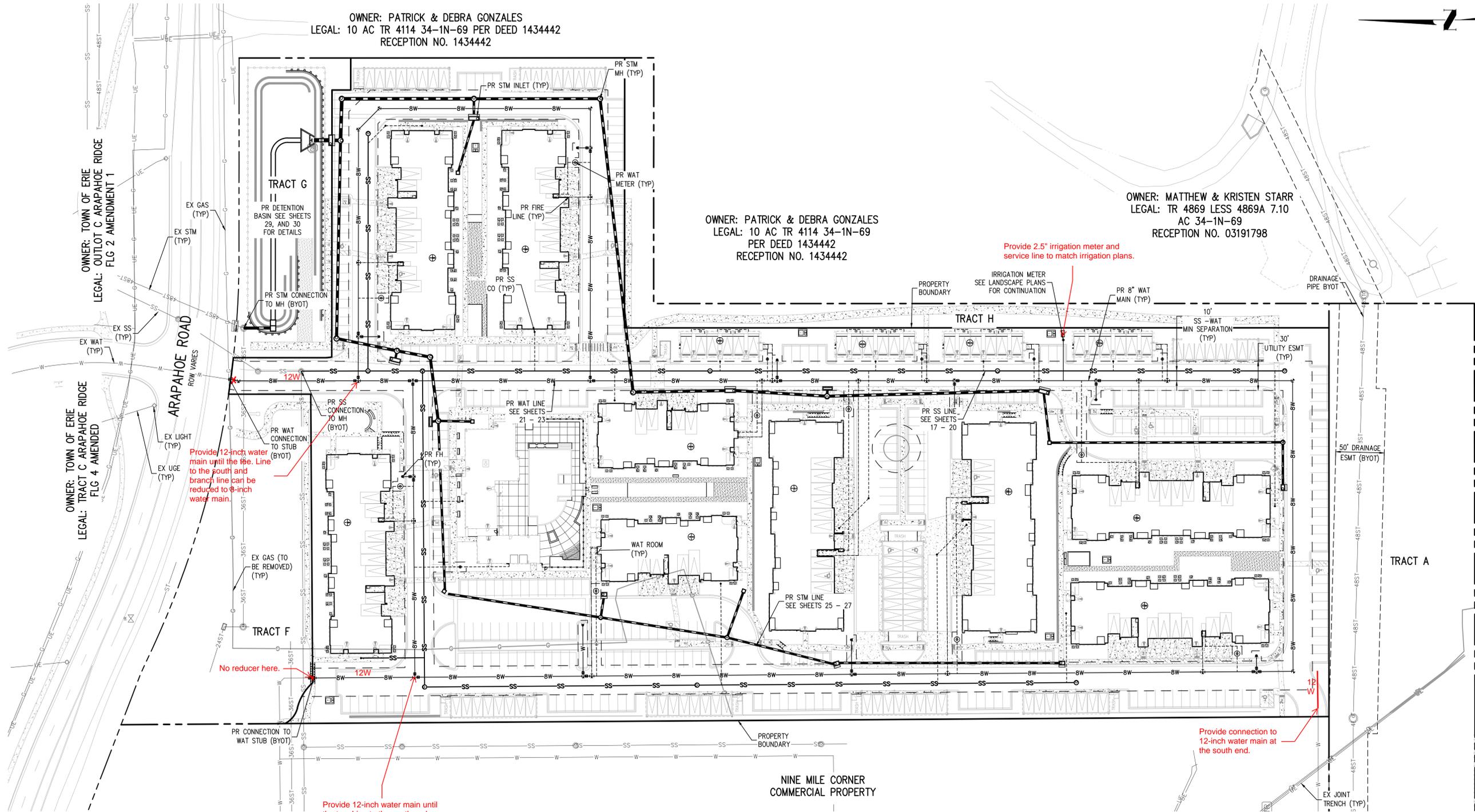
OWNER: PATRICK & DEBRA GONZALES
LEGAL: 10 AC TR 4114 34-1N-69
PER DEED 1434442
RECEPTION NO. 1434442

OWNER: MATTHEW & KRISTEN STARR
LEGAL: TR 4869 LESS 4869A 7.10
AC 34-1N-69
RECEPTION NO. 03191798

OWNER: CITY OF LAYAVETTE
LEGAL: TRACTS C & D & E BEACON
HILL REPLAT
TRACT D

REPLAT OF BEACON HILL SUBDIVISION
BLOCK 2, LOTS 1 TO 5
RECEPTION NO. 487195

REPLAT OF BEACON
HILL SUBDIVISION
BLOCK 1, LOTS 1 TO
14
RECEPTION NO.
487195



Provide 12-inch water main until the tee. Line to the south and branch line can be reduced to 8-inch water main.

No reducer here.

Provide 12-inch water main until the tee. Line to the south and branch line can be reduced to 8-inch water main.

Provide 2.5" irrigation meter and service line to match irrigation plans.

Provide connection to 12-inch water main at the south end.

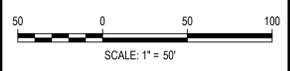
NOTES:

- OVERALL PLAN DEPICTED IS INTENDED FOR GENERAL REFERENCE OF PROJECT DEVELOPMENT.
- SEE APPROVED SANITARY PLAN SHEETS FOR DETAILS REGARDING SANITARY IMPROVEMENTS.
- SEE APPROVED WATER PLAN SHEETS FOR DETAILS REGARDING WATER IMPROVEMENTS.
- SEE APPROVED STORM SEWER PLAN SHEETS FOR DETAILS REGARDING STORM IMPROVEMENTS.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE VERTICAL/HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING NOTIFICATION:
 - UTILITY NOTIFICATION CENTER OF COLORADO, 811. CALL THREE (3) BUSINESS DAYS PRIOR TO DIGGING, GRADING OR EXCAVATING FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.
 - LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS.
 - PROVIDING NOTIFICATION AND RECEIVING MARKING OF UNDERGROUND MEMBER UTILITIES IN NO WAY CONSTITUTES PERMISSION TO PERFORM CONSTRUCTION.

FILE PATH: P:\HKS\ENGINEERING\UTILITIES\CD - OVERALL UTILITY PLANNING LAYOUT: OVERALL UTILITY PLAN
5 - 11-2019 10:00 AM
PLOTTED: THU 10/19/19 6:25:55P BY: RACHEL PATTON



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



DESIGNED BY: TJS
CHECKED BY: MSM
DRAWN BY: TJS



1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



OUTLOOK AT NINE MILE
OVERALL UTILITY PLAN

ISSUE DATE: 11-08-2019		PROJECT #: 160602
DATE	REVISION	COMMENTS

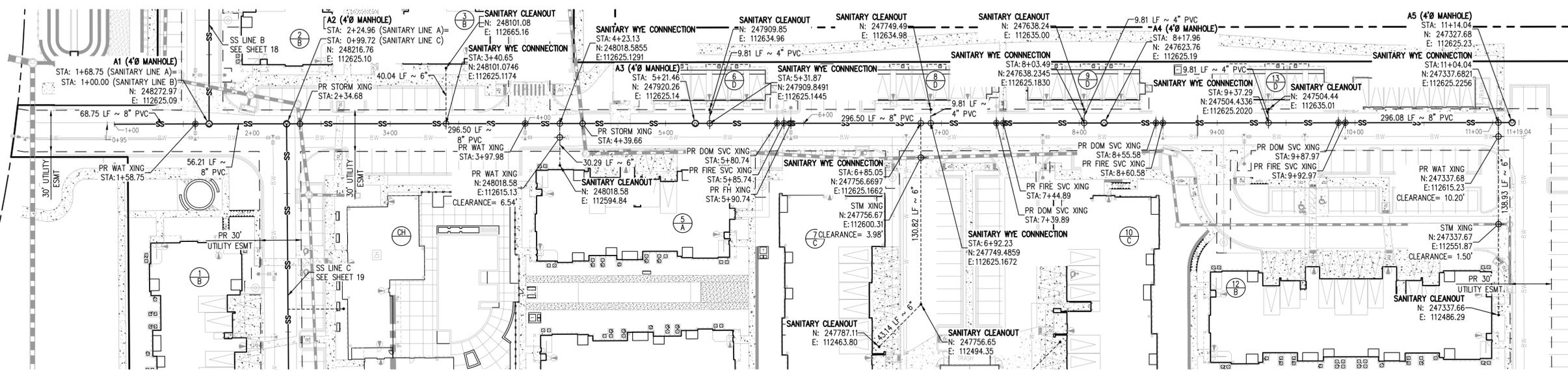
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NOT FOR
CONSTRUCTION

SHEET NO.

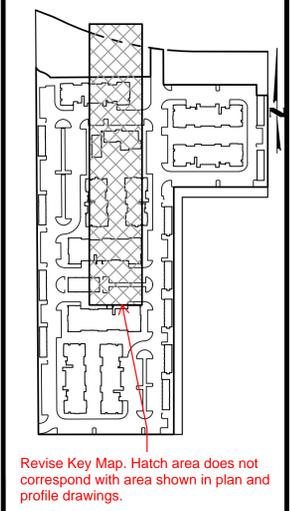
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16 OF 60

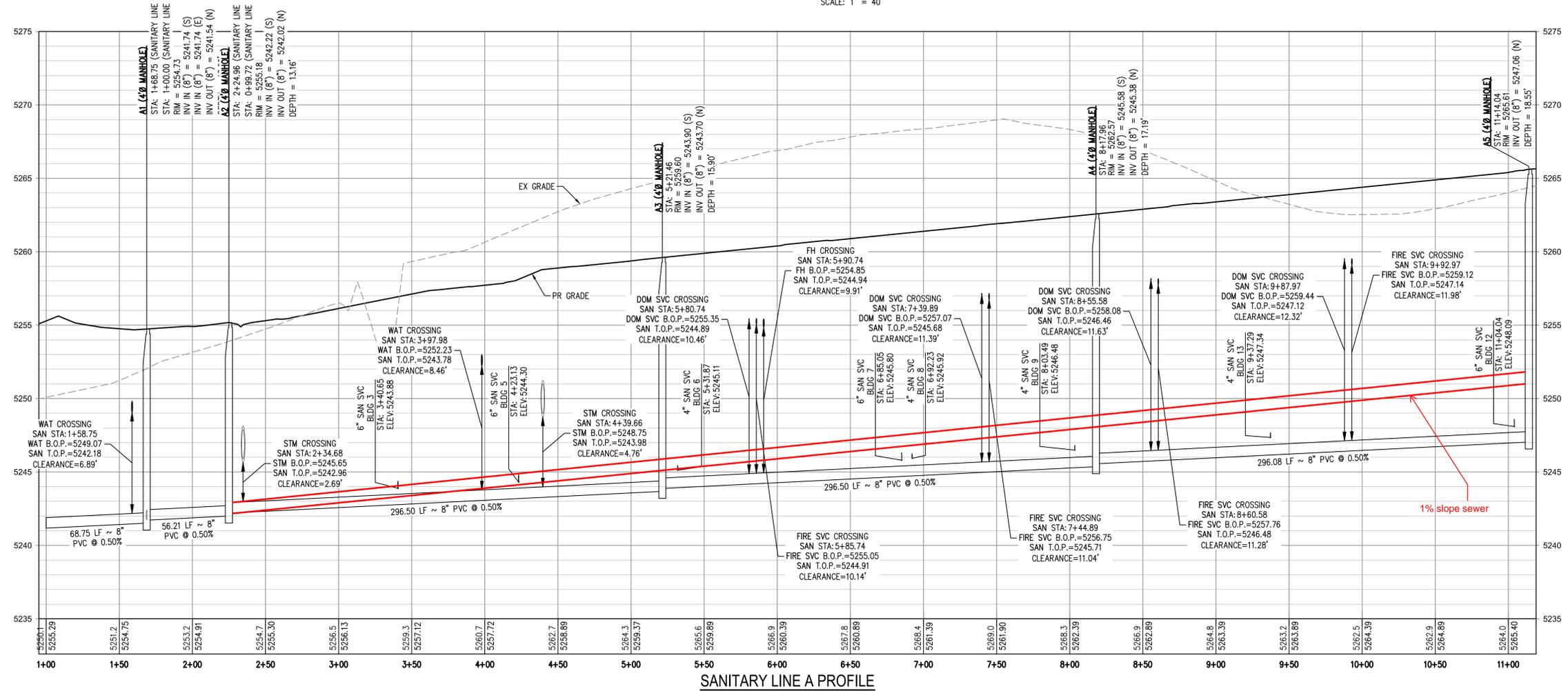
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



SANITARY LINE A PLAN
SCALE: 1" = 40'



KEY MAP
SCALE: 1" = 250'



SANITARY LINE A PROFILE
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

Avoid Manholes greater than 15 feet deep, wherever feasible. Try 1% slope between Manholes A5 and A2 to reduce MH depths. Adjust services accordingly.

SANITARY SERVICE TABLE							
BLDG SERVICE	SAN STA @ MAIN	SERVICE INV @ MAIN	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)
3	3+40.65	5243.88	5248.89	5258.10	40.04	12.50	6"
5	4+23.13	5244.30	5248.09	5259.77	30.29	12.50	6"
6	5+31.87	5245.11	5247.22	5260.60	9.81	21.50	4"
7	6+85.05	5245.80	5256.04	5263.12	173.96	5.89	6"
8	6+92.23	5245.92	5248.03	5262.20	9.81	21.50	4"
9	8+03.49	5246.48	5248.59	5263.32	9.81	21.50	4"
13	9+37.29	5247.34	5249.45	5264.65	9.81	21.50	4"
12	11+04.04	5248.09	5260.46	5266.77	138.93	8.91	6"

- NOTES:**
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE VERTICAL/HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - STATIONING IS ALONG CENTER LINE OF PIPE UNLESS OTHERWISE NOTED.
 - NORTHINGS/EASTINGS SHOWN FOR MANHOLE PLACEMENT REFERS TO CENTER OF BARREL.
 - PIPE LENGTH IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
 - ALL MANHOLES ARE ECCENTRIC UNLESS OTHERWISE NOTED.
 - ALL PROPOSED MANHOLES, SANITARY MAINS, AND SERVICES SHALL BE IN ACCORDANCE WITH CITY OF ERIE STANDARD DETAILS.

FILEPATH: P:\160602\ENGINEERING\UTILITIES\SANITARY\CD - SANITARY SEWER PLAN & PROFILE DWG LAYOUT: SANITARY SEWER PLAN & PROFILE LINE A
DATE: THU 10/07/19 8:26:58 AM BY: RACHEL PATTON

811 Know what's below. Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG. GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

DESIGNED BY: AEM
CHECKED BY: MSM
DRAWN BY: AEM

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

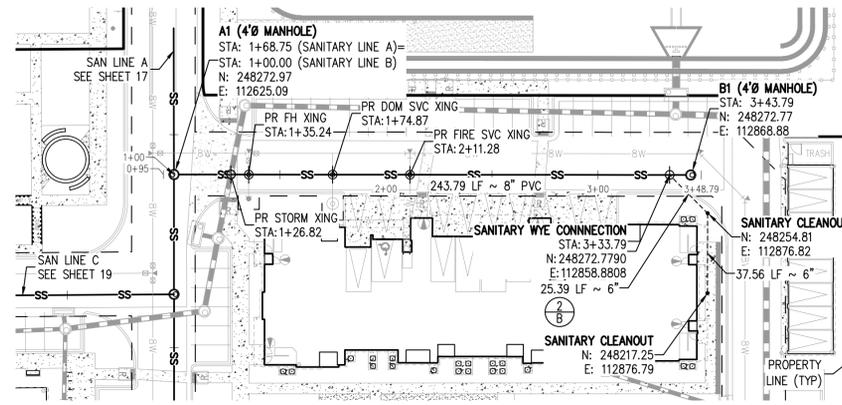
Evergreen
Development | Services | Investments

OUTLOOK AT NINE MILE
SANITARY SEWER P&P LINE A

ISSUE DATE: 11-08-2019	PROJECT #: 160602
DATE	REVISION COMMENTS

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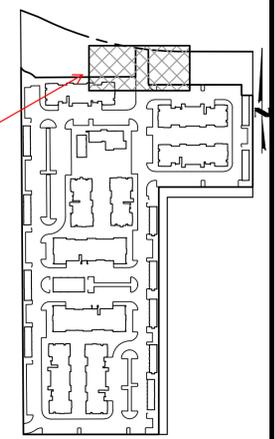
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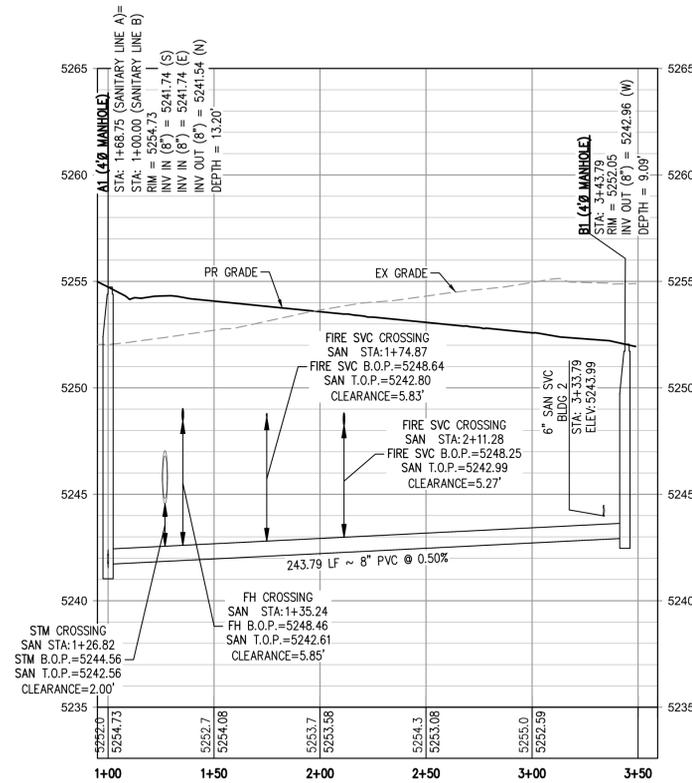
SANITARY LINE B PLAN
SCALE: 1" = 40'



Revise Key Map. Hatch area does not correspond with area shown in plan and profile drawings.



KEY MAP
SCALE: 1" = 250'



SANITARY LINE B PROFILE
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

SANITARY SERVICE TABLE

BLDG SERVICE	SAN STA	SERVICE INV @ MAIN	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)
2	3+33.79	5243.99	5249.88	5254.44	62.95	9.36	6"

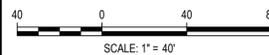
NOTES:

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- ALL PROPOSED MANHOLES, SANITARY MAINS, AND SERVICES SHALL BE IN ACCORDANCE WITH CITY OF ERIE STANDARD DETAILS.

FILE PATH: P:\160602\ENGINEERING\UTILITIES\SANITARY\160602 - SANITARY SEWER PLAN & PROFILE.DWG LAYOUT: SANITARY SEWER PLAN & PROFILE LINE B
 EVERGREEN ENGINEERING, INC. PLOT DATE: THU 10/07/19 06:26:20 PLOT BY: RACHEL PATTON



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



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 DRAWN BY: AEM



OUTLOOK AT NINE MILE
 SANITARY SEWER P&P LINE B

ISSUE DATE:	PROJECT #:
11-08-2019	160602
DATE	REVISION COMMENTS

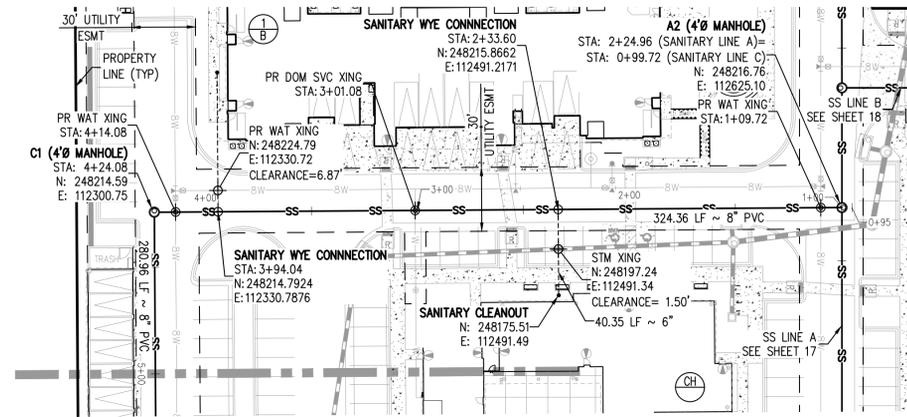
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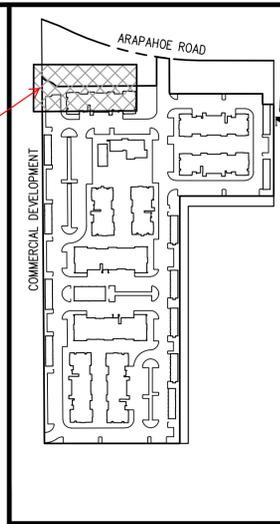
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18 OF 60

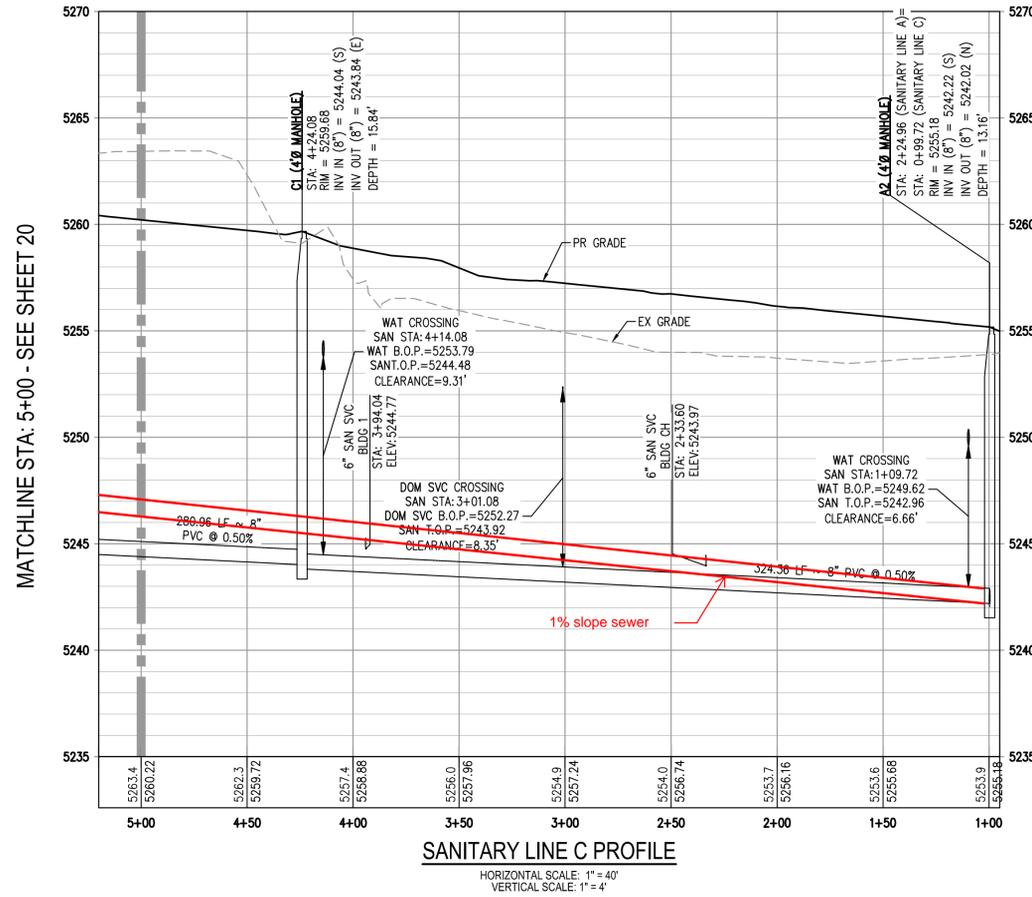
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MATCHLINE STA: 5+00 - SEE SHEET 20
SANITARY LINE C
 SCALE: 1" = 40'



Revise Key Map. Hatch area does not correspond with area shown in plan and profile drawings.



Avoid Manholes greater than 15 feet deep, wherever feasible. Try 1% slope between Manholes A5 and C3 to reduce MH depths. Adjust services accordingly.

SANITARY SERVICE TABLE							
BLDG SERVICE	SAN STA @ MAIN	SERVICE INV @ MAIN	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)
CH	2+33.60	5243.97	5247.75	5257.92	40.35	9.36	6"
1	3+94.04	5244.77	5252.94	5258.77	65.36	12.50	6"

NOTES:

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FILE PATH: P:\160602\ENGINEERING\UTILITIES\SANITARY\CD - SANITARY SEWER PLAN & PROFILE.DWG LAYOUT: SANITARY SEWER PLAN & PROFILE LINES C
 DESIGNED BY: AEM
 CHECKED BY: MSM
 PLOTTED: THU 10/7/19 8:26:23P BY: RACHEL PATTON



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



DESIGNED BY: AEM
 CHECKED BY: MSM
 DRAWN BY: AEM



OUTLOOK AT NINE MILE
 SANITARY SEWER P&P LINE C
 (STA: 0+95 TO STA: 5+00)

ISSUE DATE:	PROJECT #:
11-08-2019	160602
DATE	REVISION COMMENTS

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 NOT FOR
 CONSTRUCTION

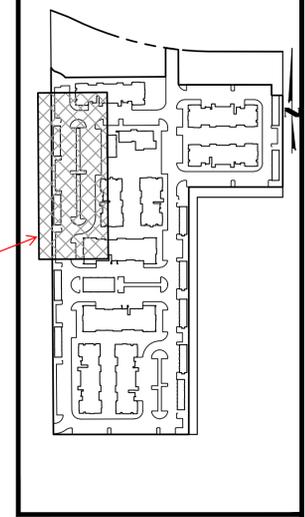
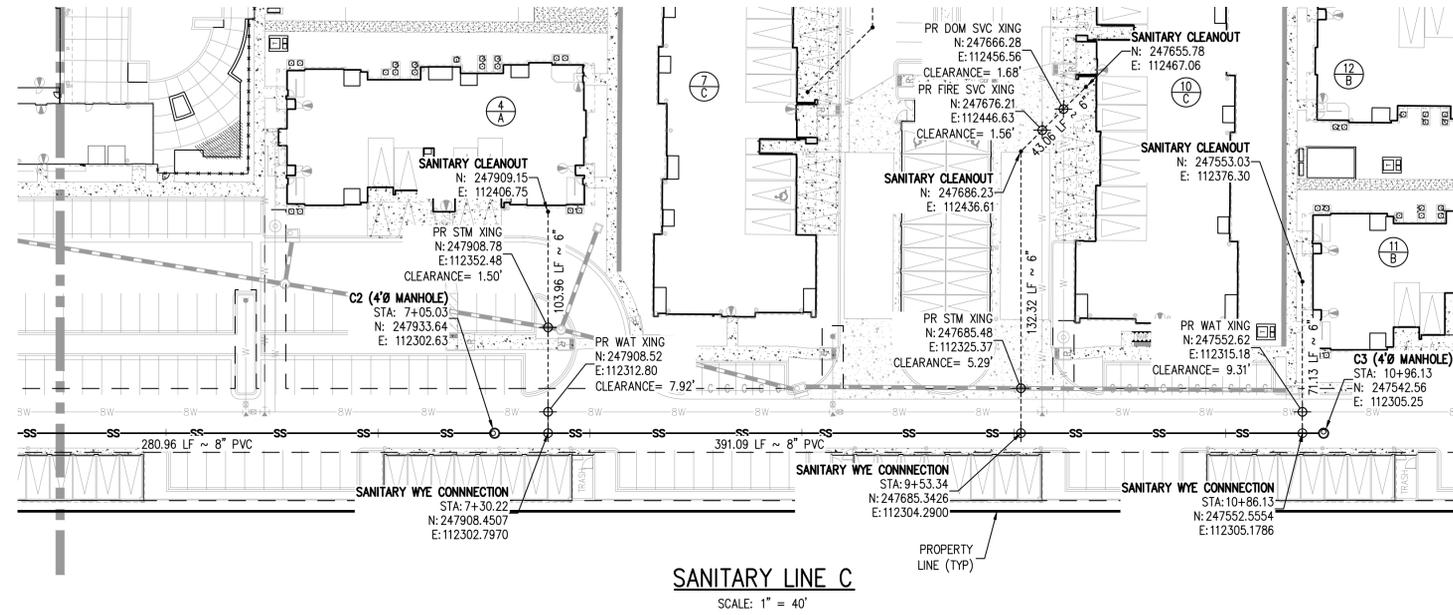
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19

19 OF 60

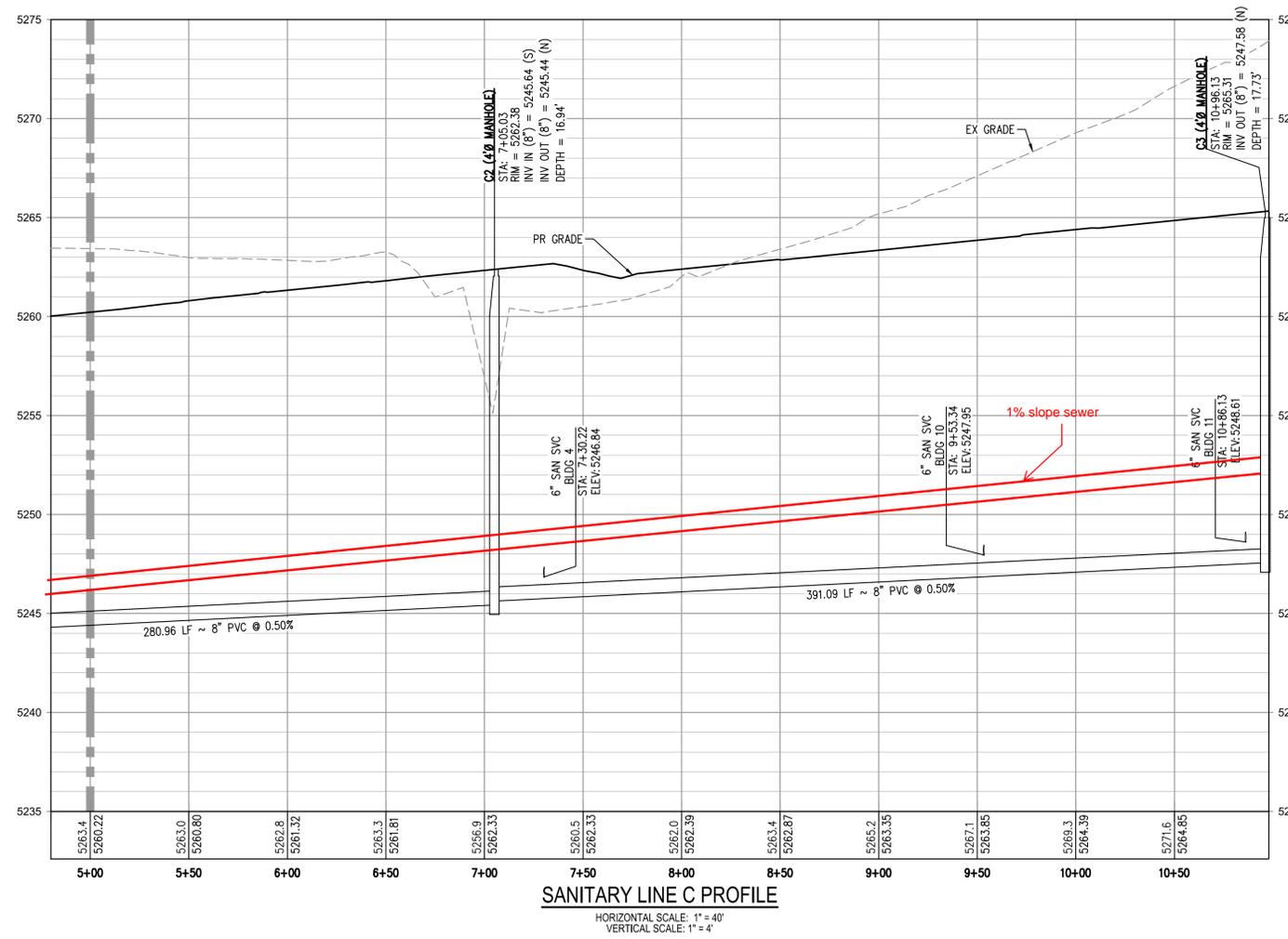
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

MATCHLINE STA: 5+00 - SEE SHEET 19



Revise Key Map. Hatch area does not correspond with area shown in plan and profile drawings.

MATCHLINE STA: 5+00 - SEE SHEET 19



Avoid Manholes greater than 15 feet deep, wherever feasible. Try 1% slope between Manholes A5 and C3 to reduce MH depths. Adjust services accordingly.

SANITARY SERVICE TABLE							
BLDG SERVICE	SAN STA @ MAIN	SERVICE INV @ MAIN	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)
4	7+30.22	5246.84	5253.95	5260.66	103.96	6.84	6"
10	9+53.54	5247.95	5257.67	5264.43	175.38	5.54	6"
11	10+86.13	5248.61	5257.50	5267.33	71.13	12.50	6"

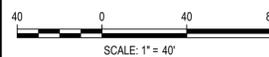
NOTES:

- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE VERTICAL/HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- STATIONING IS ALONG CENTER LINE OF PIPE UNLESS OTHERWISE NOTED.
- NORTHINGS/EASTINGS SHOWN FOR MANHOLE PLACEMENT REFERS TO CENTER OF BARREL.
- PIPE LENGTH IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- ALL MANHOLES ARE ECCENTRIC UNLESS OTHERWISE NOTED.
- ALL PROPOSED MANHOLES, SANITARY MAINS, AND SERVICES SHALL BE IN ACCORDANCE WITH CITY OF ERIE STANDARD DETAILS.

FILE PATH: P:\160602\ENGINEERING\UTILITIES\SANITARY\CD - SANITARY SEWER PLAN & PROFILE.DWG LAYOUT: SANITARY SEWER PLAN & PROFILE LINE C
DESIGNED BY: AEM
CHECKED BY: MSM
DRAWN BY: AEM
PLOT DATE: THU 11/07/19 10:26:27P BY: RACHEL PATTON



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



DESIGNED BY: AEM
CHECKED BY: MSM
DRAWN BY: AEM



OUTLOOK AT NINE MILE
SANITARY SEWER P&P LINE C
(STA: 5+00 TO STA: 10+98)

ISSUE DATE:	PROJECT #:
11-08-2019	160602
DATE	REVISION COMMENTS

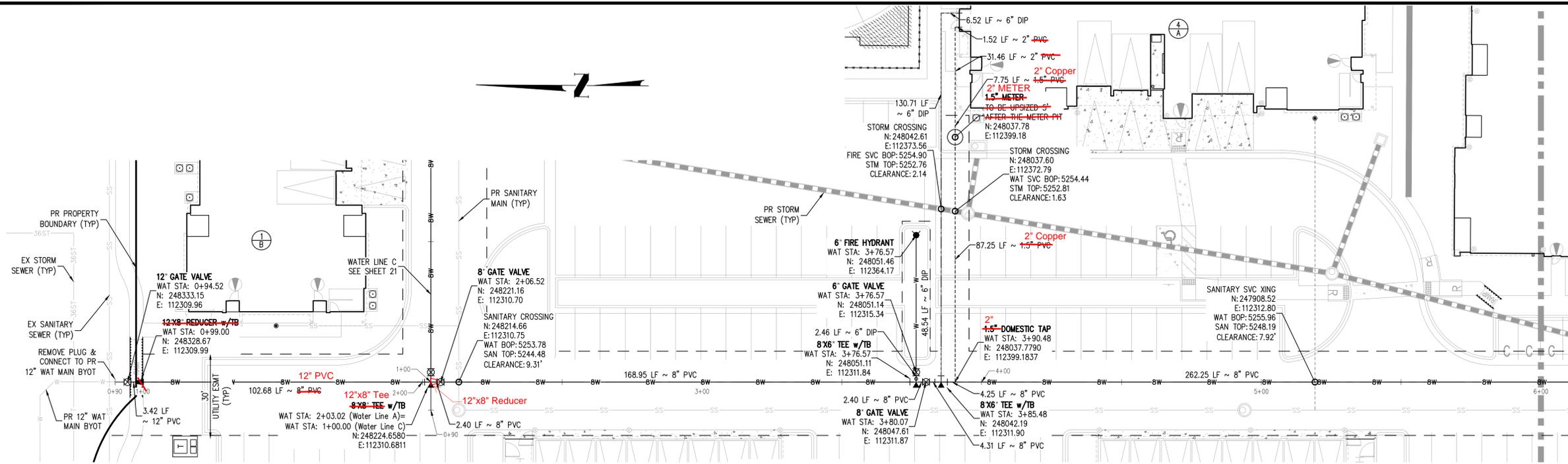
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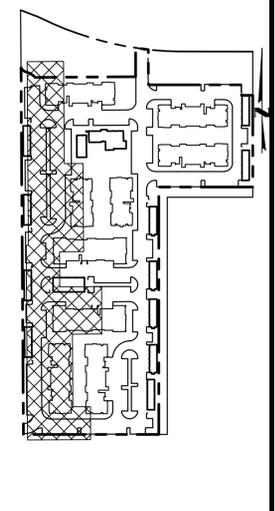
20 OF 60

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



WATER LINE A
STA: 1+00 TO 6+00
SCALE: 1" = 20'

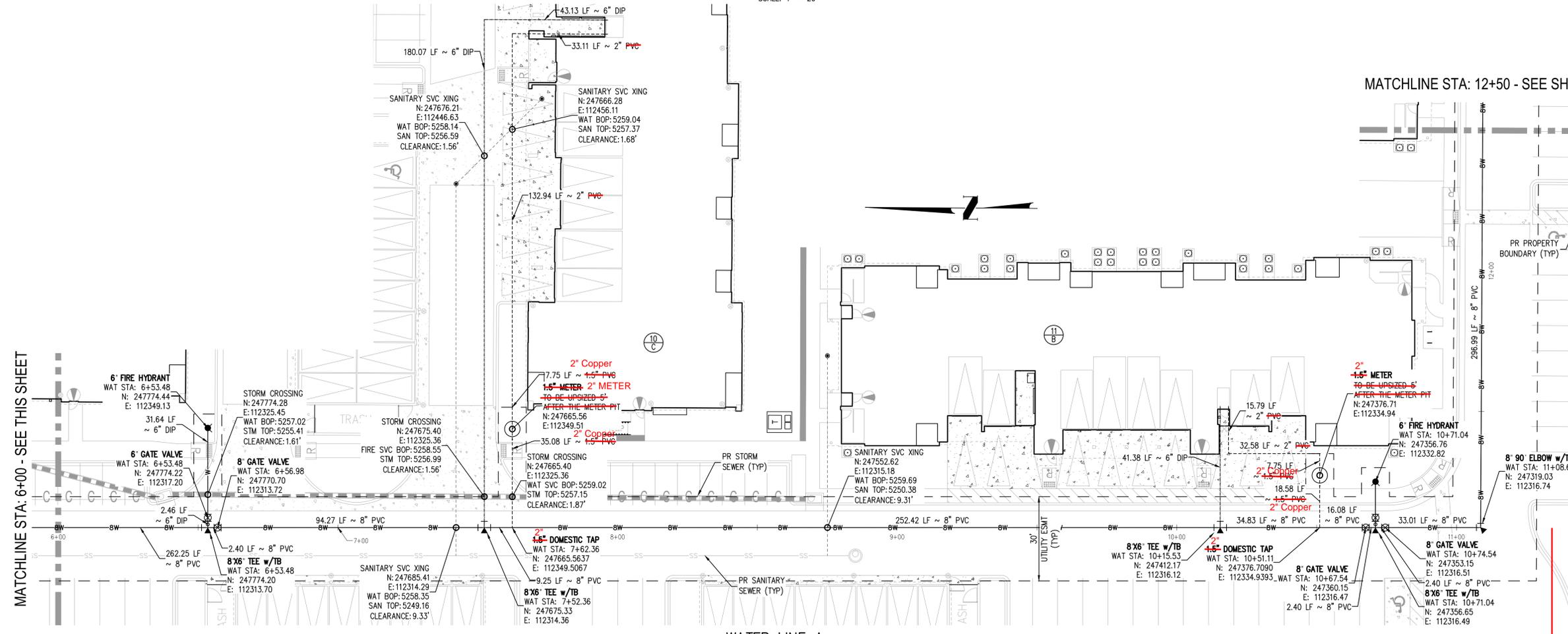
MATCHLINE STA: 6+00 - SEE THIS SHEET



KEY MAP
SCALE: 1" = 250'

NOTES:

1. ALL WATER AND FIRE SERVICES SHALL BE INSTALLED A MINIMUM OF 4.5 FEET OF COVER FROM FINISHED GRADE.
2. STATIONING IS BASED ALONG WATER CENTER LINE.
3. PIPE LENGTH GIVEN FOR DOMESTIC WATER AND FIRE SERVICES ARE FROM MAIN TO BUILDING.
4. ALL HYDRANT ASSEMBLIES, VALVES, BENDS AND FITTINGS ARE TO BE FULLY RESTRAINED.
5. ALL VALVES, BENDS, TEES AND CROSSES SHALL HAVE THRUST BLOCKS.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF ERIE'S 2017 STANDARDS AND SPECIFICATIONS.
7. ALL WATER WILL BE PUBLIC UNLESS OTHERWISE NOTED.
8. CURB STOPS SHALL BE ONE FOOT FROM THE METER PIT.
9. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE VERTICAL/HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
10. FOR TOWN OF ERIE NOTES - SEE SHEETS 2 & 3



WATER LINE A
STA: 6+00 TO 12+50
SCALE: 1" = 20'

MATCHLINE STA: 12+50 - SEE SHEET 22

MATCHLINE STA: 6+00 - SEE THIS SHEET

Connect to 12" stub out, provided by others.

FILE PATH: P:\160602\ENGINEERING\UTILITIES\WATER\CD - WATER PLAN\DWG LAYOUT - WATER PLAN 1.dwg
DATE: THU 10/17/19 8:28:36 AM
PLOTTED: THU 10/17/19 8:28:36 AM
BY: RACHEL PATTON

811 Know what's below. Call before you dig.

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

DESIGNED BY: BMW
CHECKED BY: MSM
DRAWN BY: BMW

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

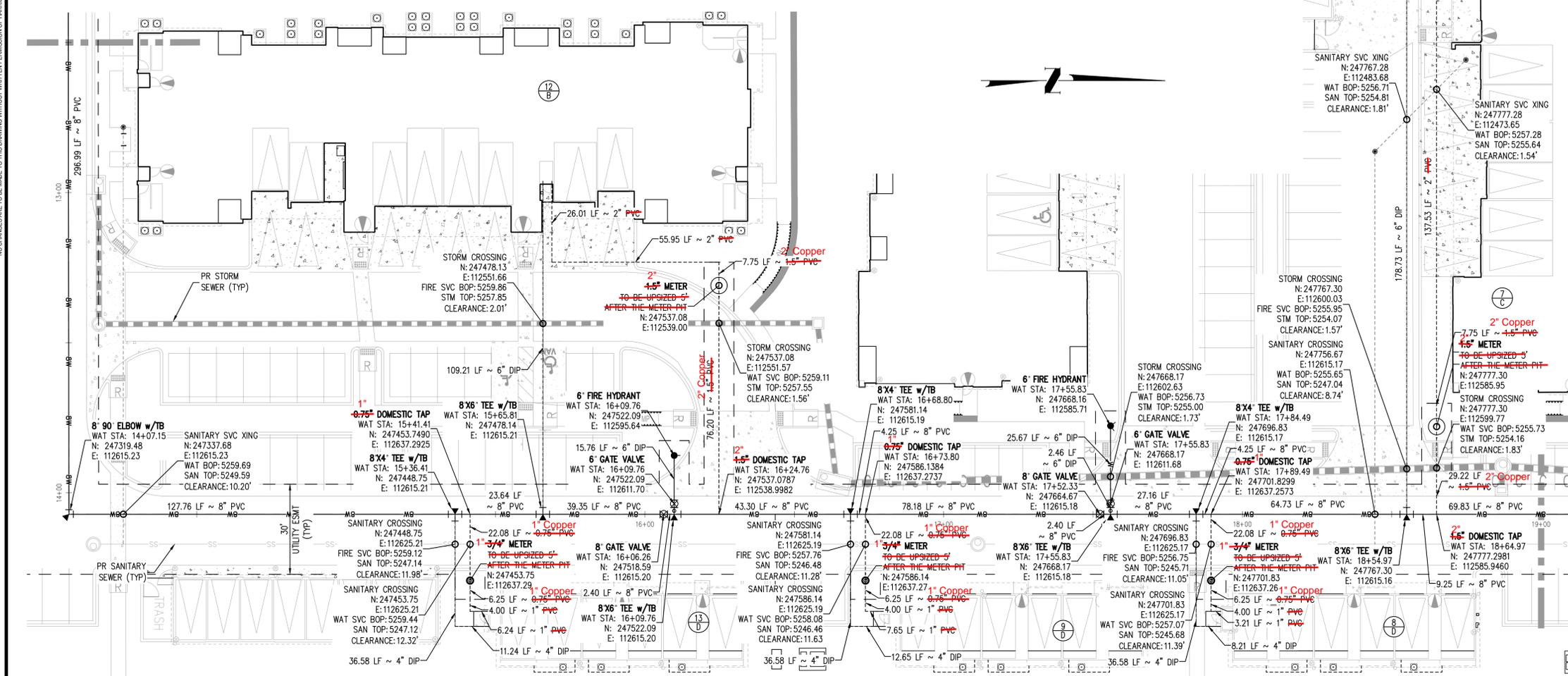
Evergreen
Development | Services | Investments

OUTLOOK AT NINE MILE
WATER PLAN LINE A
STA: 1+00 TO 12+50

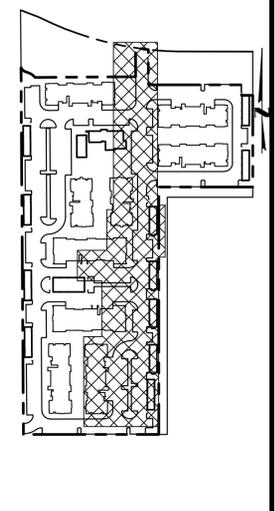
ISSUE DATE: 11-08-2019	PROJECT #: 160602
DATE	REVISION COMMENTS

PRELIMINARY
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CONSTRUCTION

MATCHLINE STA: 12+50 - SEE SHEET 21

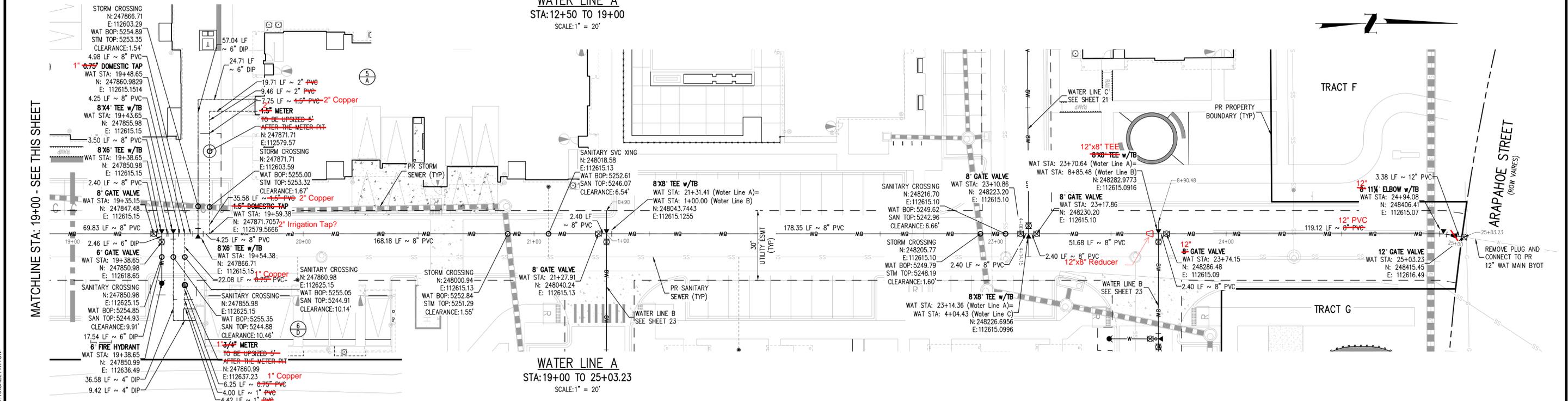


- NOTES:**
- ALL WATER AND FIRE SERVICES SHALL BE INSTALLED A MINIMUM OF 4.5 FEET OF COVER FROM FINISHED GRADE.
 - STATIONING IS BASED ALONG WATER CENTER LINE.
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 - FOR TOWN OF ERIE NOTES - SEE SHEETS 2 & 3



MATCHLINE STA: 19+00 - SEE THIS SHEET

**WATER LINE A
STA: 12+50 TO 19+00
SCALE: 1" = 20'**



**WATER LINE A
STA: 19+00 TO 25+03.23
SCALE: 1" = 20'**

MATCHLINE STA: 19+00 - SEE THIS SHEET

DESIGNED BY: RJH
CHECKED BY: MSM
DRAWN BY: RJH

**OUTLOOK AT NINE MILE
WATER PLAN LINE A
STA: 12+00 TO 25+03.23**

ISSUE DATE:	PROJECT #:
11-08-2019	160602
DATE	REVISION COMMENTS

PRELIMINARY
NOT FOR
CONSTRUCTION

FINAL UTILITY REPORT
FOR
OUTLOOK NINE MILE

Prepared: November 5, 2019

Prepared for:



1873 S. Bellaire Street, Suite 1200
Denver, Colorado 80222
Phone: 303-757-0401

Prepared by:



Michael Moore, P.E.
1120 Lincoln Street, Suite 1000
Denver, CO 80203
Ph.: 303-623-6300, Fax: 303-623-6311

Harris Kocher Smith Project No.: 160602

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ENGINEER'S STATEMENT

The enclosed utility report, and exhibits, were prepared by me or under my direct supervision and is correct to the best of my knowledge and belief. Said utility report has been prepared in accordance with applicable Town of Erie criteria and is in conformance with the master utility plans for the affected area. I accept responsibility for any liability caused by negligent acts, errors or omissions on my part in preparing this report.

Michael S. Moore, PE 47854
For and on behalf of Harris Kocher Smith

Date

OWNER/DEVELOPER STATEMENT:

As Owner/Developer of land identified within this report; I agree to proceed, implement and comply with all recommendations and requirements outlined herein.

Name of Developer

Authorized Signature

I. PROJECT LOCATION AND DESCRIPTION

A. Site Location

The proposed Outlook Nine Mile project (“Site”) is located within the Town of Erie, County of Boulder, Colorado at the southeast corner of Arapahoe Road and N. 107th Street. More specifically, it is situated within the Northeast ¼ of Section 34, and the Southeast ¼ of Section 27, Township 1 North, Range 69 West of the 6th Principal Meridian.

The Site is bordered by Arapahoe Road to the north, vacant land to the east, a single-family residential development to the south and the future Nine Mile Commercial project (“Commercial”) to the west.

The Site is a part of a master development, Nine Mile Corner.

B. Description of Property

11.65 or 12.54 acres? This value does not match acreage listed on some plans.

The Site consists of approximately 11.65 acres of vacant land which will be used for a multi-family development. Vegetation cover is comprised of native grasses and bare ground with approximately 100% coverage.

The existing ground generally slopes from south to north, with slopes ranging from 0.5% to 25%. Construction will include overlot grading, installation of internal roadway and utility infrastructure, and construction of the retail and multi-family buildings.

The Site will be developed as nine multi-family residential buildings, a clubhouse/leasing office, a swimming pool and various site amenities, such as landscaping, and associated infrastructure improvements, including construction of private drives and utility installation.

One detention/water quality pond is proposed to accommodate runoff from the development.

Easements will be provided around water mains, fire hydrants, water meters, and sanitary sewer mains outside of the public rights-of-way, in accordance with Town of Erie (Town) standards regarding location and size. The proposed easements are to be dedicated by plat.

There is an existing irrigation ditch located on-Site. As a part of the master development, the ditch will be filled in, and flows will be conveyed via storm pipe along the southern portion of the Site. At the time of the Site development, the ditch will no longer be located on site.

As previously mentioned, the Site is a part of a master development, and the water and sanitary sewer infrastructure was analyzed in the “Preliminary Utility Report for Nine Mile Corner at Nine Mile Subdivision Filing 1” prepared by Galloway & Company, Inc.

II. CALCULATED WATER DEMANDS

The design of the water distribution system was based on the information provided in THE Erie Planning & Development Standards and Specifications Section 600 – Water Facilities (Water Manual). Demands were computed for the full build out of the Project. Water demand calculations by building can be found in Appendix A.

A. AVERAGE DAY DEMANDS (ADD)

The Average Daily Demand rate is 140 GPCD (Gallons Per Capita/Day) for Multi-Family Residential per the Water Manual. Per the planned development zoning document, a value of ~~2.89 persons/dwelling~~ **2.79 persons/dwelling unit** was used.

Land Use	Dwelling Units	ADD (GPD)	ADD (GPM)
Multi-Family Residential	290	117,334	82

B. MAX DAY DEMANDS (MDD)

The Maximum Day Demand rate is 2.6 MDD/ADD per the Water Manual.

Land Use	Dwelling Units	ADD (GPD)	MDD (GPD)	MDD (GPM)
Multi-Family Residential	290	117,334	305,068	212

C. MAX HOUR DEMANDS (MH)

The Max Hour Demand Rate is 3.9 (MH/ADD) per the Water Manual.

Land Use	Dwelling Units	ADD (GPD)	MH (GPD)	PHD (GPM)
Multi-Family Residential	290	117,334	457603	318

D. FIRE FLOW DEMANDS

Fire flow was calculated based on 2018 International Fire Code flow rates. All buildings were assumed to be construction Type V-A or V-B. It was also assumed that only one fire would be fought at a time. Based on Table B 105.1, a minimum fire flow demand of 4,250 GPM was derived. An automatic commercial sprinkler system is to be installed within the buildings allowing a 50% reduction in flow, resulting in a final required fire flow of 2,125 GPM for a 2-hour duration. An excerpt of Table B 105.1 is below for reference.

ISO requires round to nearest 500 gpm, i.e. 2500 gpm.

TABLE B105.1(2)
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) ^a	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and VA ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,800	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,801-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,800	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/min, 1 pound per square inch = 6.895 kPa.
^aTypes of construction are based on the International Building Code.
^bMeasured at 20 psi residual pressure.

III. EXISTING WATER SYSTEM

A. Existing Distribution System

An existing 12" water main is located along the north side of Arapahoe Road. This is the only existing water distribution system near the Site.

IV. PROPOSED WATER SYSTEM

A. Proposed Distribution System

The proposed on-site water infrastructure will be designed to accommodate the entire development. Water service sizes are summarized in the table below. The water services sizes below have been upsized to the next size five feet after the building's water meter.

Water Service Sizes	
Building Type	Service Size (in)
Type A	2
Type B	2
Type C	2
Type D	1
Clubhouse	1.5

Upsizing after the meter will not be allowed. Provide appropriately sized meters and service lines.

The proposed water system, consisting mainly of 8" water mains, will be looped through the Site and connect to the proposed 12" water main being designed by Galloway. Thus, we will upsize our mains just before connecting to the proposed water main by Galloway. The water main will be connected at two locations: the entrance to the Site from Arapahoe Street, and at the northwest corner of the Site. As part of the master development, Galloway will be placing new water main along Arapahoe Street, as well as in their commercial development previously discussed.

V. PROPOSED WATER SYSTEM ANALYSIS AND MODELING

A. Hydraulic Models and Pressure Constraints

The proposed water system was modeled using Bentley WaterCAD V8i software. Per the Water Manual, water distribution pipes must have a maximum velocity of 10 feet per second, which applies to all scenarios. A Hazen Williams "C" factor of 100 was used. Maximum allowable head loss is 2 feet per 1000 feet, which applies to the maximum daily demand scenario. Operating pressure requirements from the manual are: a maximum static pressure of 125 psi, a minimum static pressure of 43 psi, maintaining 20 psi residual pressure during required fire flow and 40 psi residential residual pressure during peak residential flow, and maximum pressure drop from static head to either fire flow or peak residential shall not exceed 30 psi.

B. Hydraulic Modeling Scenarios

The Following scenarios were modeled and results can be found in Appendix B:

- Average Daily Demand
- Maximum Daily Demand plus Fire Flow for the full build-out of the development
- Maximum Hour Demand for the full build-out of the development

C. Hydraulic Modeling Output

The total demand supplied by the model for each scenario can be found in Table 1 below. The Maximum Daily Demand + Fire Scenarios were calculated by adding the Fire Flow GPM to the Maximum Daily Demand scenario. Per the Water Manual, the complete fire flow demand is applied at a single hydrant location, where the pressure is lowest within the proposed water system.

Scenario	Demand (GPM)
Average Daily Demand	82
Max Hour Demand	319
Max Daily Demand [MDD]	208
MDD + Fire Building CH	2,458
MDD + Fire Building 1	1,908
MDD + Fire Building 2	1,908
MDD + Fire Building 3	1,908
MDD + Fire Building 4	1,908
MDD + Fire Building 5	1,908
MDD + Fire Building 6	1,908
MDD + Fire Building 7	2,634
MDD + Fire Building 8	1,908
MDD + Fire Building 9	2,634
MDD + Fire Building 10	1,908
MDD + Fire Building 11	1,908
MDD + Fire Building 12	1,908
MDD + Fire Building 13	1,908

D. FIRE HYDRANT TEST RESULTS

A fire hydrant was tested just south of the Site. The results were used in the water model discussed above. A copy of the results can be found in Appendix B

The FH tested is located in Lafayette and not part of the Town of Erie's water system. Therefore, the pressures and test flow recorded are irrelevant to your site.

VI. CALCULATED WASTEWATER FLOWS

A. Average Daily Flows

Average Daily Flows (ADF) for wastewater were calculated per the Town of Erie Public Works Standards and Specifications Section 700 – Sanitary Sewer Facilities. A flow of ~~189 gallons/unit/day~~ was utilized for the multi-family units. This information is based off multi-family buildings with similar occupancy.

Use 90 gpd per capita, 2.79 persons per dwelling unit.

Peak Daily Flows were determined by multiplying the Average Daily Flow by the Peaking Factor (PF). The Peaking Factor is calculated using the following equation:

$$PF = 3.8/(ADF)^{0.17}$$

The Peaking Factor shall not be less than 2.5 or greater than 5 per Town of Erie criteria.

The Design Flow rate is calculated by multiplying the Average Design Flows with the Peaking Factor. The sanitary sewers must convey the peak flow at a maximum flow depth of 80% of the pipe diameter.

The Peak Design Flow rate has been calculated to be 274,050 gpd or 0.42 cfs.

Average Design Flows and Peak Design Flows for the development are as follows:

REVISE

Sanitary Flow Calculations

Multi-Family Area		
	290	Units
	2.79	Capita/Unit
	2.1	
	90 gpd/c	189 Gal/Unit/Day
Average Day	54,810	Gal/Day
	0.08	cfs
	5	Peaking Factor
Max Flow Rate	274,050	Gal/Day
	0.42	cfs

VII. EXISTING WASTEWATER SYSTEM

A. Existing Collection System

An existing 8" sanitary main is located on the north side of the site in the road that will be connecting to Arapahoe Road. As a part of the commercial and master development, the commercial development is building **finish this statement...**

VIII. PROPOSED WASTEWATER SYSTEM

A. Proposed Collection System

The proposed on-site sanitary infrastructure will be designed to accommodate the entire development. Service sizes for the future buildings A, B, C and the Clubhouse are currently 6". The service size for the carriage unit building type is 4".

The sanitary infrastructure will generally flow northeast within the development. A sanitary extension will connect the multi-family flows to the existing 8" sewer main located adjacent Arapahoe Road and the private roadway connecting to Arapahoe Road.

B. Proposed Wastewater Facilities

No new wastewater facilities will be constructed as part of this development.

IX. PROPOSED WASTEWATER SYSTEM ANALYSIS AND MODELING

Because the total wastewater loading from the Site is less than that anticipated in the Master Report, no modeling is necessary.

X. FUTURE DEVELOPMENT REQUIREMENTS

Future development of water and/or sanitary infrastructure and service stubs have been incorporated within the design.

XI. REFERENCES

- Town of Erie Public Works Standards and Specifications Section 600 – Water Facilities
- Town of Erie Public Works Standards and Specifications Section 700 – Sanitary Sewer Facilities

Appendix A – Water Demands

BLDG	Total Sq Ft	Count	Construction Type	Stories	Calculated Fire Flow (Table B105.1) (GPM)	W/50% Reduction (Min 1,500)	Min Hydrants	Average Spacing	Max Spacing	Hose Pull	Number of Hydrants Used	Fire Flow to Each Hydrant (GPM)
Clubhouse	6,350	1	V-B	1	2,250	No Reduction	2	500	300	250	2	1,125
Carriage	3,753	4	V-B	2	1,750	1,500	1	500	300	250	1	1,500
18-Plex	18,388	2	V-A	3	2,500	1,500	1	500	300	250	1	1,500
28-Plex	27,751	5	V-A	2	3,000	1,500	1	500	300	250	1	1,500
51-Plex	57,383	2	V-A	4	4,250	2,125	2	450	300	225	2	1,063

BUILDING	Type	TOTAL BUILDING SQUARE FOOTAGE	CONSTRUCTION TYPE	NUMBER OF STORIES	SPRINKLED	CALCULATED FIRE FLOW (IFC TABLE B105.1) (GPM)	CALCULATED FIRE FLOW W/ 50% REDUCTION (IFC SECTION B105) (GPM)	MINIMUM NUMBER OF HYDRANTS (IFC TABLE C105.1)	NUMBER OF HYDRANTS USED	FIRE FLOW TO EACH HYDRANT (GPM)
Building 1	28-Plex	27,751	V-A	2	Yes	3,000	1,500	1	2	750
Building 2	28-Plex	27,751	V-A	2	Yes	3,000	1,500	1	2	750
Building 3	28-Plex	27,751	V-A	2	Yes	3,000	1,500	1	2	750
Building 4	18-Plex	18,388	V-A	3	Yes	2,500	1,500	1	1	1500
Building 5	18-Plex	18,388	V-A	3	Yes	2,500	1,500	1	1	1500
Building 6	Carriage	3,753	V-B	2	Yes	1,750	1,500	1	1	1500
Building 7	51-Plex	57,383	V-A	4	Yes	4,250	2,125	2	2	1063
Building 8	Carriage	3,753	V-B	2	Yes	1,750	1,500	1	1	1500
Building 9	Carriage	3,753	V-B	2	Yes	1,750	1,500	1	1	1500
Building 10	51-Plex	57,383	V-A	4	Yes	4,250	2,125	2	2	1063
Building 11	28-Plex	27,751	V-A	2	Yes	3,000	1,500	1	1	1500
Building 12	28-Plex	27,751	V-A	2	Yes	3,000	1,500	1	1	1500
Building 13	Carriage	3,753	V-B	2	Yes	1,750	1,500	1	1	1500
Clubhouse	Clubhouse	6,350	V-B	1	No	2,250	N/A	2	2	1125

- unknown quantities (from previous iteration of calcs in 2017)

Lot/Parcel	Land Use	Area (acre)	Units	Persons/Unit	ADF/Unit* Gal/Unit/Day	ADF (gpd)	Max Hour Factor** (MHD)	MHD (gpm)	Max Daily Factor*** (MDD)	MDD (gpm)
Block 2	Multi-Family	12.54	290	2.69	140	117334	3.9	318	2.6	212

11.65 acres?

2.79

BUILDING TYPE	# OF UNITS	SPRINKLER FIRE FLOWS (GPM)	AVG DAILY DEMAND (GPD)	AVG DAILY DEMAND (GPM)	MAX DAILY DEMAND (GPM)	MAX HOUR DEMAND (GPM)
51-PLEX	51	300	20634.6	14.33	37.26	55.89
28-PLEX	28	200	11328.8	7.87	20.45	30.68
18-PLEX	18	200	7282.8	5.06	13.15	19.72
CARRIAGE	3	200	1213.8	0.84	2.19	3.29

Revise based on pop.
density.

** MAX DAY/AVG DAY 2.6
*** MAX HR./FLOW RATIO 3.9

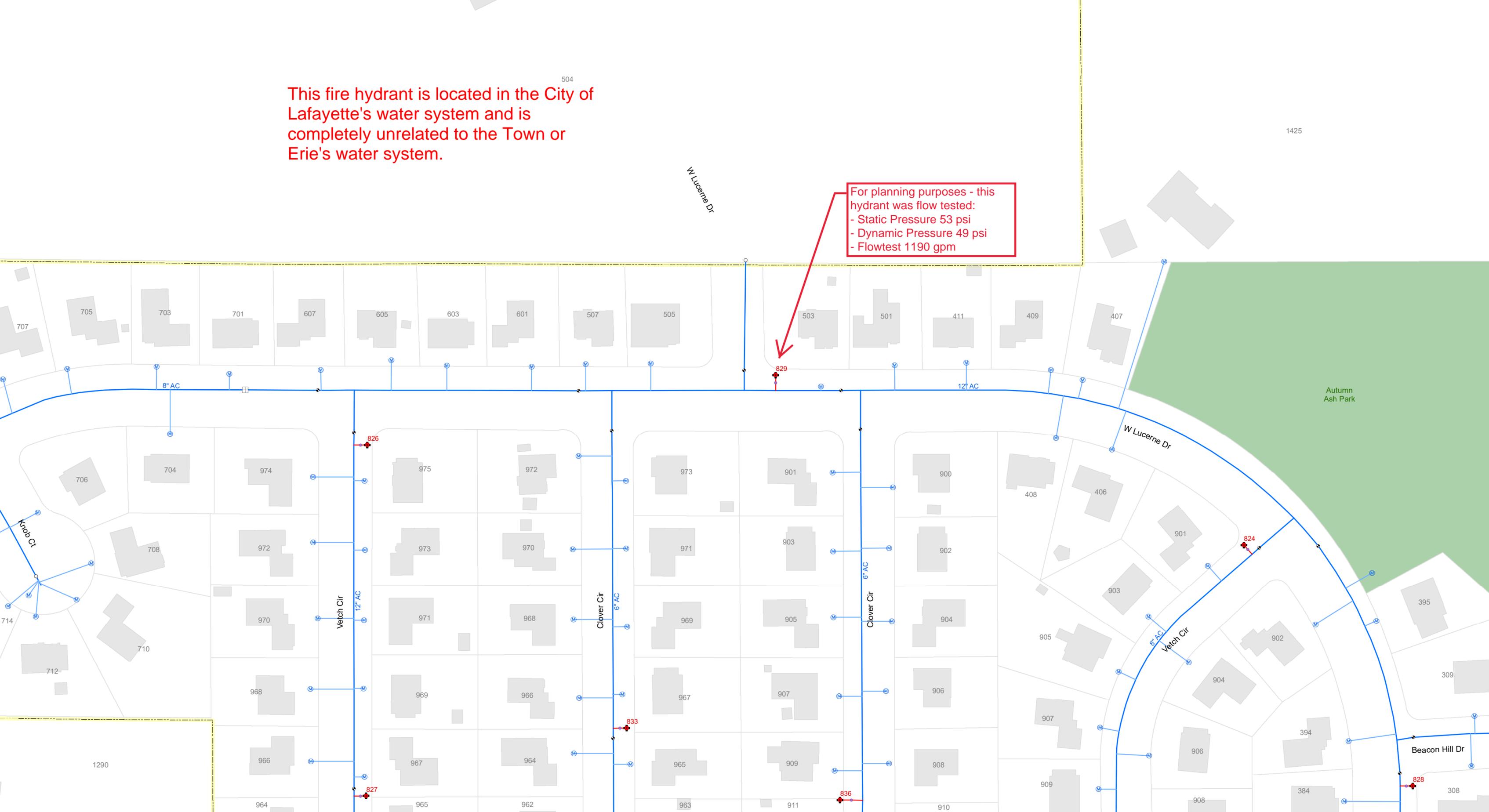
Appendix B – Water Hydraulic Analysis & Modeling & Fire Hydrant Test Results

This fire hydrant is located in the City of Lafayette's water system and is completely unrelated to the Town or Erie's water system.

504

1425

For planning purposes - this hydrant was flow tested:
- Static Pressure 53 psi
- Dynamic Pressure 49 psi
- Flowtest 1190 gpm



Scenario: Avg Day
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	8	66
1Fire	5,251.80	0	66
2Dom	5,248.40	8	68
2Fire	5,248.00	0	68
3Dom	5,251.10	8	66
3Fire	5,251.50	0	66
4Dom	5,255.80	5	64
4Fire	5,255.80	0	64
5Dom	5,254.60	5	65
5Fire	5,254.70	0	65
6Dom	5,254.80	1	65
6Fire	5,254.80	0	65
7Dom	5,255.60	14	64
7Fire	5,255.70	0	64
8Dom	5,256.40	1	64
8Fire	5,256.40	0	64
9Dom	5,257.50	1	64
9Fire	5,257.60	0	64
10Dom	5,258.70	14	63
10Fire	5,258.60	0	63
11Dom	5,261.40	8	62
11Fire	5,261.10	0	62
12Dom	5,258.00	8	63
12Fire	5,258.60	0	63
13Dom	5,258.80	1	63
13Fire	5,258.90	0	63
CHDOM	5,252.30	0	66
H1	5,248.80	0	67
H2	5,251.00	0	66
H3	5,254.90	0	65
H4	5,256.70	0	64
H5	5,258.10	0	63
H6	5,261.60	0	62
H7	5,257.60	0	64
H8	5,255.70	0	64
H9	5,251.30	0	66
Tee1	5,250.10	0	67
Tee2	5,250.20	0	67
Tee3	5,252.60	0	66
Tee4	5,254.30	0	65

Total: 82

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Scenario: Max Day
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	66
1Fire	5,251.80	0	66
2Dom	5,248.40	20	67
2Fire	5,248.00	0	68
3Dom	5,251.10	20	66
3Fire	5,251.50	0	66
4Dom	5,255.80	13	64
4Fire	5,255.80	0	64
5Dom	5,254.60	13	65
5Fire	5,254.70	0	65
6Dom	5,254.80	2	65
6Fire	5,254.80	0	65
7Dom	5,255.60	37	64
7Fire	5,255.70	0	64
8Dom	5,256.40	2	64
8Fire	5,256.40	0	64
9Dom	5,257.50	2	63
9Fire	5,257.60	0	63
10Dom	5,258.70	37	63
10Fire	5,258.60	0	63
11Dom	5,261.40	20	62
11Fire	5,261.10	0	62
12Dom	5,258.00	20	63
12Fire	5,258.60	0	63
13Dom	5,258.80	2	63
13Fire	5,258.90	0	63
CHDOM	5,252.30	0	66
H1	5,248.80	0	67
H2	5,251.00	0	66
H3	5,254.90	0	65
H4	5,256.70	0	64
H5	5,258.10	0	63
H6	5,261.60	0	62
H7	5,257.60	0	63
H8	5,255.70	0	64
H9	5,251.30	0	66
Tee1	5,250.10	0	67
Tee2	5,250.20	0	67
Tee3	5,252.60	0	66
Tee4	5,254.30	0	65

Total: 208

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Scenario: Max Hour
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	31	66
1Fire	5,251.80	0	66
2Dom	5,248.40	31	67
2Fire	5,248.00	0	68
3Dom	5,251.10	31	66
3Fire	5,251.50	0	66
4Dom	5,255.80	20	64
4Fire	5,255.80	0	64
5Dom	5,254.60	20	65
5Fire	5,254.70	0	65
6Dom	5,254.80	3	65
6Fire	5,254.80	0	65
7Dom	5,255.60	56	64
7Fire	5,255.70	0	64
8Dom	5,256.40	3	64
8Fire	5,256.40	0	64
9Dom	5,257.50	3	63
9Fire	5,257.60	0	63
10Dom	5,258.70	56	63
10Fire	5,258.60	0	63
11Dom	5,261.40	31	62
11Fire	5,261.10	0	62
12Dom	5,258.00	31	63
12Fire	5,258.60	0	63
13Dom	5,258.80	3	63
13Fire	5,258.90	0	63
CHDOM	5,252.30	0	66
H1	5,248.80	0	67
H2	5,251.00	0	66
H3	5,254.90	0	65
H4	5,256.70	0	64
H5	5,258.10	0	63
H6	5,261.60	0	62
H7	5,257.60	0	63
H8	5,255.70	0	64
H9	5,251.30	0	66
Tee1	5,250.10	0	67
Tee2	5,250.20	0	67
Tee3	5,252.60	0	66
Tee4	5,254.30	0	65

Total: 319

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Scenario: 1Fire H9
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	63
1Fire	5,251.80	200	63
2Dom	5,248.40	20	65
2Fire	5,248.00	0	66
3Dom	5,251.10	20	64
3Fire	5,251.50	0	64
4Dom	5,255.80	13	63
4Fire	5,255.80	0	63
5Dom	5,254.60	13	62
5Fire	5,254.70	0	62
6Dom	5,254.80	2	62
6Fire	5,254.80	0	62
7Dom	5,255.60	37	62
7Fire	5,255.70	0	62
8Dom	5,256.40	2	62
8Fire	5,256.40	0	62
9Dom	5,257.50	2	61
9Fire	5,257.60	0	61
10Dom	5,258.70	37	61
10Fire	5,258.60	0	61
11Dom	5,261.40	20	60
11Fire	5,261.10	0	60
12Dom	5,258.00	20	61
12Fire	5,258.60	0	61
13Dom	5,258.80	2	61
13Fire	5,258.90	0	61
CHDOM	5,252.30	0	63
H1	5,248.80	0	65
H2	5,251.00	0	64
H3	5,254.90	0	62
H4	5,256.70	0	62
H5	5,258.10	0	61
H6	5,261.60	0	60
H7	5,257.60	0	62
H8	5,255.70	0	63
H9	5,251.30	1,500	63
Tee1	5,250.10	0	65
Tee2	5,250.20	0	64
Tee3	5,252.60	0	63
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 2Fire H1
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	62
2Fire	5,248.00	200	63
3Dom	5,251.10	20	63
3Fire	5,251.50	0	63
4Dom	5,255.80	13	63
4Fire	5,255.80	0	63
5Dom	5,254.60	13	62
5Fire	5,254.70	0	62
6Dom	5,254.80	2	62
6Fire	5,254.80	0	62
7Dom	5,255.60	37	62
7Fire	5,255.70	0	61
8Dom	5,256.40	2	61
8Fire	5,256.40	0	61
9Dom	5,257.50	2	61
9Fire	5,257.60	0	61
10Dom	5,258.70	37	61
10Fire	5,258.60	0	61
11Dom	5,261.40	20	60
11Fire	5,261.10	0	60
12Dom	5,258.00	20	61
12Fire	5,258.60	0	61
13Dom	5,258.80	2	60
13Fire	5,258.90	0	60
CHDOM	5,252.30	0	64
H1	5,248.80	1,500	62
H2	5,251.00	0	63
H3	5,254.90	0	62
H4	5,256.70	0	61
H5	5,258.10	0	61
H6	5,261.60	0	60
H7	5,257.60	0	62
H8	5,255.70	0	63
H9	5,251.30	0	64
Tee1	5,250.10	0	64
Tee2	5,250.20	0	64
Tee3	5,252.60	0	63
Tee4	5,254.30	0	64

TOTAL 1,908

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Scenario: 3Fire H2
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	64
2Fire	5,248.00	0	63
3Dom	5,251.10	20	59
3Fire	5,251.50	200	59
4Dom	5,255.80	13	63
4Fire	5,255.80	0	63
5Dom	5,254.60	13	61
5Fire	5,254.70	0	60
6Dom	5,254.80	2	60
6Fire	5,254.80	0	60
7Dom	5,255.60	37	60
7Fire	5,255.70	0	60
8Dom	5,256.40	2	60
8Fire	5,256.40	0	60
9Dom	5,257.50	2	60
9Fire	5,257.60	0	60
10Dom	5,258.70	37	61
10Fire	5,258.60	0	61
11Dom	5,261.40	20	59
11Fire	5,261.10	0	59
12Dom	5,258.00	20	60
12Fire	5,258.60	0	59
13Dom	5,258.80	2	59
13Fire	5,258.90	0	59
CHDOM	5,252.30	0	64
H1	5,248.80	0	64
H2	5,251.00	1,500	58
H3	5,254.90	0	60
H4	5,256.70	0	60
H5	5,258.10	0	60
H6	5,261.60	0	59
H7	5,257.60	0	61
H8	5,255.70	0	63
H9	5,251.30	0	64
Tee1	5,250.10	0	64
Tee2	5,250.20	0	64
Tee3	5,252.60	0	61
Tee4	5,254.30	0	64

TOTAL 1,908

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Scenario: 4Fire H8
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	66
2Fire	5,248.00	0	66
3Dom	5,251.10	20	64
3Fire	5,251.50	200	64
4Dom	5,255.80	13	58
4Fire	5,255.80	0	58
5Dom	5,254.60	13	62
5Fire	5,254.70	0	62
6Dom	5,254.80	2	62
6Fire	5,254.80	0	62
7Dom	5,255.60	37	61
7Fire	5,255.70	0	61
8Dom	5,256.40	2	61
8Fire	5,256.40	0	61
9Dom	5,257.50	2	60
9Fire	5,257.60	0	60
10Dom	5,258.70	37	58
10Fire	5,258.60	0	58
11Dom	5,261.40	20	57
11Fire	5,261.10	0	57
12Dom	5,258.00	20	60
12Fire	5,258.60	0	59
13Dom	5,258.80	2	59
13Fire	5,258.90	0	59
CHDOM	5,252.30	0	64
H1	5,248.80	0	66
H2	5,251.00	0	64
H3	5,254.90	0	62
H4	5,256.70	0	60
H5	5,258.10	0	59
H6	5,261.60	0	57
H7	5,257.60	0	58
H8	5,255.70	1,500	58
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	65
Tee3	5,252.60	0	63
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 5Fire H3
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	62
3Fire	5,251.50	0	62
4Dom	5,255.80	13	61
4Fire	5,255.80	0	62
5Dom	5,254.60	13	57
5Fire	5,254.70	200	56
6Dom	5,254.80	2	56
6Fire	5,254.80	0	55
7Dom	5,255.60	37	54
7Fire	5,255.70	0	54
8Dom	5,256.40	2	54
8Fire	5,256.40	0	54
9Dom	5,257.50	2	54
9Fire	5,257.60	0	55
10Dom	5,258.70	37	58
10Fire	5,258.60	0	58
11Dom	5,261.40	20	56
11Fire	5,261.10	0	56
12Dom	5,258.00	20	55
12Fire	5,258.60	0	55
13Dom	5,258.80	2	55
13Fire	5,258.90	0	55
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	62
H3	5,254.90	1,500	54
H4	5,256.70	0	55
H5	5,258.10	0	55
H6	5,261.60	0	56
H7	5,257.60	0	60
H8	5,255.70	0	62
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	64
Tee3	5,252.60	0	61
Tee4	5,254.30	0	64

TOTAL 1,908

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Scenario: 6Fire H3
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	62
3Fire	5,251.50	0	62
4Dom	5,255.80	13	61
4Fire	5,255.80	0	62
5Dom	5,254.60	13	57
5Fire	5,254.70	0	56
6Dom	5,254.80	2	56
6Fire	5,254.80	200	55
7Dom	5,255.60	37	54
7Fire	5,255.70	0	54
8Dom	5,256.40	2	54
8Fire	5,256.40	0	54
9Dom	5,257.50	2	54
9Fire	5,257.60	0	54
10Dom	5,258.70	37	58
10Fire	5,258.60	0	58
11Dom	5,261.40	20	56
11Fire	5,261.10	0	56
12Dom	5,258.00	20	54
12Fire	5,258.60	0	55
13Dom	5,258.80	2	55
13Fire	5,258.90	0	55
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	1,500	54
H4	5,256.70	0	54
H5	5,258.10	0	55
H6	5,261.60	0	56
H7	5,257.60	0	59
H8	5,255.70	0	62
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	64
Tee3	5,252.60	0	61
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 7Fire H4 & H7
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	63
1Fire	5,251.80	0	63
2Dom	5,248.40	20	64
2Fire	5,248.00	0	64
3Dom	5,251.10	20	61
3Fire	5,251.50	0	61
4Dom	5,255.80	13	54
4Fire	5,255.80	0	55
5Dom	5,254.60	13	56
5Fire	5,254.70	0	55
6Dom	5,254.80	2	55
6Fire	5,254.80	0	54
7Dom	5,255.60	37	51
7Fire	5,255.70	300	50
8Dom	5,256.40	2	49
8Fire	5,256.40	0	49
9Dom	5,257.50	2	48
9Fire	5,257.60	0	48
10Dom	5,258.70	37	48
10Fire	5,258.60	0	48
11Dom	5,261.40	20	46
11Fire	5,261.10	0	46
12Dom	5,258.00	20	47
12Fire	5,258.60	0	47
13Dom	5,258.80	2	47
13Fire	5,258.90	0	47
CHDOM	5,252.30	0	62
H1	5,248.80	0	64
H2	5,251.00	0	61
H3	5,254.90	0	53
H4	5,256.70	1,063	48
H5	5,258.10	0	47
H6	5,261.60	0	46
H7	5,257.60	1,063	48
H8	5,255.70	0	56
H9	5,251.30	0	63
Tee1	5,250.10	0	64
Tee2	5,250.20	0	63
Tee3	5,252.60	0	60
Tee4	5,254.30	0	62

TOTAL: 2634

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Scenario: 8Fire H3
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	62
3Fire	5,251.50	0	62
4Dom	5,255.80	13	61
4Fire	5,255.80	0	62
5Dom	5,254.60	13	57
5Fire	5,254.70	0	56
6Dom	5,254.80	2	56
6Fire	5,254.80	0	55
7Dom	5,255.60	37	54
7Fire	5,255.70	0	54
8Dom	5,256.40	2	54
8Fire	5,256.40	200	54
9Dom	5,257.50	2	54
9Fire	5,257.60	0	54
10Dom	5,258.70	37	58
10Fire	5,258.60	0	58
11Dom	5,261.40	20	55
11Fire	5,261.10	0	56
12Dom	5,258.00	20	54
12Fire	5,258.60	0	54
13Dom	5,258.80	2	54
13Fire	5,258.90	0	54
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	1,500	54
H4	5,256.70	0	54
H5	5,258.10	0	54
H6	5,261.60	0	55
H7	5,257.60	0	59
H8	5,255.70	0	62
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	64
Tee3	5,252.60	0	61
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 8Fire H4
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	63
3Fire	5,251.50	0	63
4Dom	5,255.80	13	61
4Fire	5,255.80	0	61
5Dom	5,254.60	13	58
5Fire	5,254.70	0	57
6Dom	5,254.80	2	57
6Fire	5,254.80	0	56
7Dom	5,255.60	37	54
7Fire	5,255.70	0	53
8Dom	5,256.40	2	52
8Fire	5,256.40	200	51
9Dom	5,257.50	2	51
9Fire	5,257.60	0	51
10Dom	5,258.70	37	57
10Fire	5,258.60	0	57
11Dom	5,261.40	20	54
11Fire	5,261.10	0	54
12Dom	5,258.00	20	51
12Fire	5,258.60	0	51
13Dom	5,258.80	2	51
13Fire	5,258.90	0	52
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	0	56
H4	5,256.70	1,500	51
H5	5,258.10	0	51
H6	5,261.60	0	53
H7	5,257.60	0	58
H8	5,255.70	0	61
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	65
Tee3	5,252.60	0	62
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 9Fire H4
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	63
3Fire	5,251.50	0	63
4Dom	5,255.80	13	61
4Fire	5,255.80	0	61
5Dom	5,254.60	13	58
5Fire	5,254.70	0	57
6Dom	5,254.80	2	57
6Fire	5,254.80	0	56
7Dom	5,255.60	37	54
7Fire	5,255.70	0	53
8Dom	5,256.40	2	52
8Fire	5,256.40	0	52
9Dom	5,257.50	2	50
9Fire	5,257.60	200	50
10Dom	5,258.70	37	56
10Fire	5,258.60	0	57
11Dom	5,261.40	20	53
11Fire	5,261.10	0	54
12Dom	5,258.00	20	50
12Fire	5,258.60	0	51
13Dom	5,258.80	2	51
13Fire	5,258.90	0	51
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	0	56
H4	5,256.70	1,500	50
H5	5,258.10	0	51
H6	5,261.60	0	53
H7	5,257.60	0	58
H8	5,255.70	0	61
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	65
Tee3	5,252.60	0	62
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 10Fire H4 & H7
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	63
1Fire	5,251.80	0	63
2Dom	5,248.40	20	64
2Fire	5,248.00	0	64
3Dom	5,251.10	20	62
3Fire	5,251.50	0	61
4Dom	5,255.80	13	54
4Fire	5,255.80	0	55
5Dom	5,254.60	13	56
5Fire	5,254.70	0	55
6Dom	5,254.80	2	55
6Fire	5,254.80	0	54
7Dom	5,255.60	37	52
7Fire	5,255.70	0	51
8Dom	5,256.40	2	50
8Fire	5,256.40	0	49
9Dom	5,257.50	2	47
9Fire	5,257.60	0	47
10Dom	5,258.70	37	47
10Fire	5,258.60	300	47
11Dom	5,261.40	20	45
11Fire	5,261.10	0	46
12Dom	5,258.00	20	47
12Fire	5,258.60	0	47
13Dom	5,258.80	2	47
13Fire	5,258.90	0	47
CHDOM	5,252.30	0	62
H1	5,248.80	0	64
H2	5,251.00	0	62
H3	5,254.90	0	54
H4	5,256.70	1,063	48
H5	5,258.10	0	47
H6	5,261.60	0	45
H7	5,257.60	1,063	47
H8	5,255.70	0	56
H9	5,251.30	0	63
Tee1	5,250.10	0	64
Tee2	5,250.20	0	63
Tee3	5,252.60	0	60
Tee4	5,254.30	0	62

TOTAL 2634

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Scenario: 11Fire H6
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	66
2Fire	5,248.00	0	66
3Dom	5,251.10	20	64
3Fire	5,251.50	0	64
4Dom	5,255.80	13	58
4Fire	5,255.80	0	59
5Dom	5,254.60	13	60
5Fire	5,254.70	0	60
6Dom	5,254.80	2	60
6Fire	5,254.80	0	59
7Dom	5,255.60	37	58
7Fire	5,255.70	0	58
8Dom	5,256.40	2	57
8Fire	5,256.40	0	56
9Dom	5,257.50	2	55
9Fire	5,257.60	0	54
10Dom	5,258.70	37	51
10Fire	5,258.60	0	52
11Dom	5,261.40	20	47
11Fire	5,261.10	200	47
12Dom	5,258.00	20	54
12Fire	5,258.60	0	52
13Dom	5,258.80	2	52
13Fire	5,258.90	0	52
CHDOM	5,252.30	0	64
H1	5,248.80	0	66
H2	5,251.00	0	64
H3	5,254.90	0	59
H4	5,256.70	0	56
H5	5,258.10	0	53
H6	5,261.60	1,500	47
H7	5,257.60	0	54
H8	5,255.70	0	60
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	65
Tee3	5,252.60	0	63
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 12Fire H5
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	63
3Fire	5,251.50	0	63
4Dom	5,255.80	13	60
4Fire	5,255.80	0	60
5Dom	5,254.60	13	59
5Fire	5,254.70	0	58
6Dom	5,254.80	2	58
6Fire	5,254.80	0	57
7Dom	5,255.60	37	55
7Fire	5,255.70	0	55
8Dom	5,256.40	2	53
8Fire	5,256.40	0	53
9Dom	5,257.50	2	50
9Fire	5,257.60	0	50
10Dom	5,258.70	37	55
10Fire	5,258.60	0	56
11Dom	5,261.40	20	52
11Fire	5,261.10	0	52
12Dom	5,258.00	20	49
12Fire	5,258.60	200	49
13Dom	5,258.80	2	49
13Fire	5,258.90	0	49
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	0	57
H4	5,256.70	0	52
H5	5,258.10	1,500	49
H6	5,261.60	0	51
H7	5,257.60	0	57
H8	5,255.70	0	61
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	65
Tee3	5,252.60	0	62
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: 13Fire H5
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	64
1Fire	5,251.80	0	64
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	63
3Fire	5,251.50	0	63
4Dom	5,255.80	13	60
4Fire	5,255.80	0	60
5Dom	5,254.60	13	59
5Fire	5,254.70	0	58
6Dom	5,254.80	2	58
6Fire	5,254.80	0	57
7Dom	5,255.60	37	55
7Fire	5,255.70	0	55
8Dom	5,256.40	2	54
8Fire	5,256.40	0	53
9Dom	5,257.50	2	51
9Fire	5,257.60	0	50
10Dom	5,258.70	37	55
10Fire	5,258.60	0	56
11Dom	5,261.40	20	52
11Fire	5,261.10	0	52
12Dom	5,258.00	20	49
12Fire	5,258.60	0	49
13Dom	5,258.80	2	49
13Fire	5,258.90	200	49
CHDOM	5,252.30	0	64
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	0	57
H4	5,256.70	0	52
H5	5,258.10	1,500	49
H6	5,261.60	0	51
H7	5,257.60	0	57
H8	5,255.70	0	61
H9	5,251.30	0	64
Tee1	5,250.10	0	65
Tee2	5,250.20	0	65
Tee3	5,252.60	0	62
Tee4	5,254.30	0	63

TOTAL 1,908

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Scenario: CH H8 & H9
Current Time Step: 0.000Hr
FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
1Dom	5,251.50	20	62
1Fire	5,251.80	0	62
2Dom	5,248.40	20	65
2Fire	5,248.00	0	65
3Dom	5,251.10	20	63
3Fire	5,251.50	0	63
4Dom	5,255.80	13	59
4Fire	5,255.80	0	59
5Dom	5,254.60	13	61
5Fire	5,254.70	0	61
6Dom	5,254.80	2	61
6Fire	5,254.80	0	61
7Dom	5,255.60	37	61
7Fire	5,255.70	0	60
8Dom	5,256.40	2	60
8Fire	5,256.40	0	60
9Dom	5,257.50	2	59
9Fire	5,257.60	0	59
10Dom	5,258.70	37	58
10Fire	5,258.60	0	58
11Dom	5,261.40	20	57
11Fire	5,261.10	0	57
12Dom	5,258.00	20	59
12Fire	5,258.60	0	59
13Dom	5,258.80	2	59
13Fire	5,258.90	0	59
CHDOM	5,252.30	0	62
H1	5,248.80	0	65
H2	5,251.00	0	63
H3	5,254.90	0	61
H4	5,256.70	0	60
H5	5,258.10	0	59
H6	5,261.60	0	57
H7	5,257.60	0	58
H8	5,255.70	1,125	59
H9	5,251.30	1,125	62
Tee1	5,250.10	0	64
Tee2	5,250.20	0	63
Tee3	5,252.60	0	62
Tee4	5,254.30	0	62

TOTAL 2,458

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Appendix C – Wastewater Flow Calculations

Provide pipe capacity and flow velocity calculations.



Outlook Nine Mile
Nov. 8, 2019

REVISE

Sanitary Sewer Peak Flow									
	Units	Capita/Unit	Gal/Capita/Day	Gal/Unit/Day	Average Day (Gal/Day)	Average Day (cfs)	Peaking Factor	Max Flow Rate (Gal/Day)	Max Flow Rate (cfs)
Multi-Family Area	290	2.1	90	189	54,810	0.08	5	274,050	0.42

2.79

Appendix D – Proposed Overall Utility Plan

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

OWNER: PATRICK & DEBRA GONZALES
 LEGAL: 10 AC TR 4114 34-1N-69 PER DEED 1434442
 RECEPTION NO. 1434442

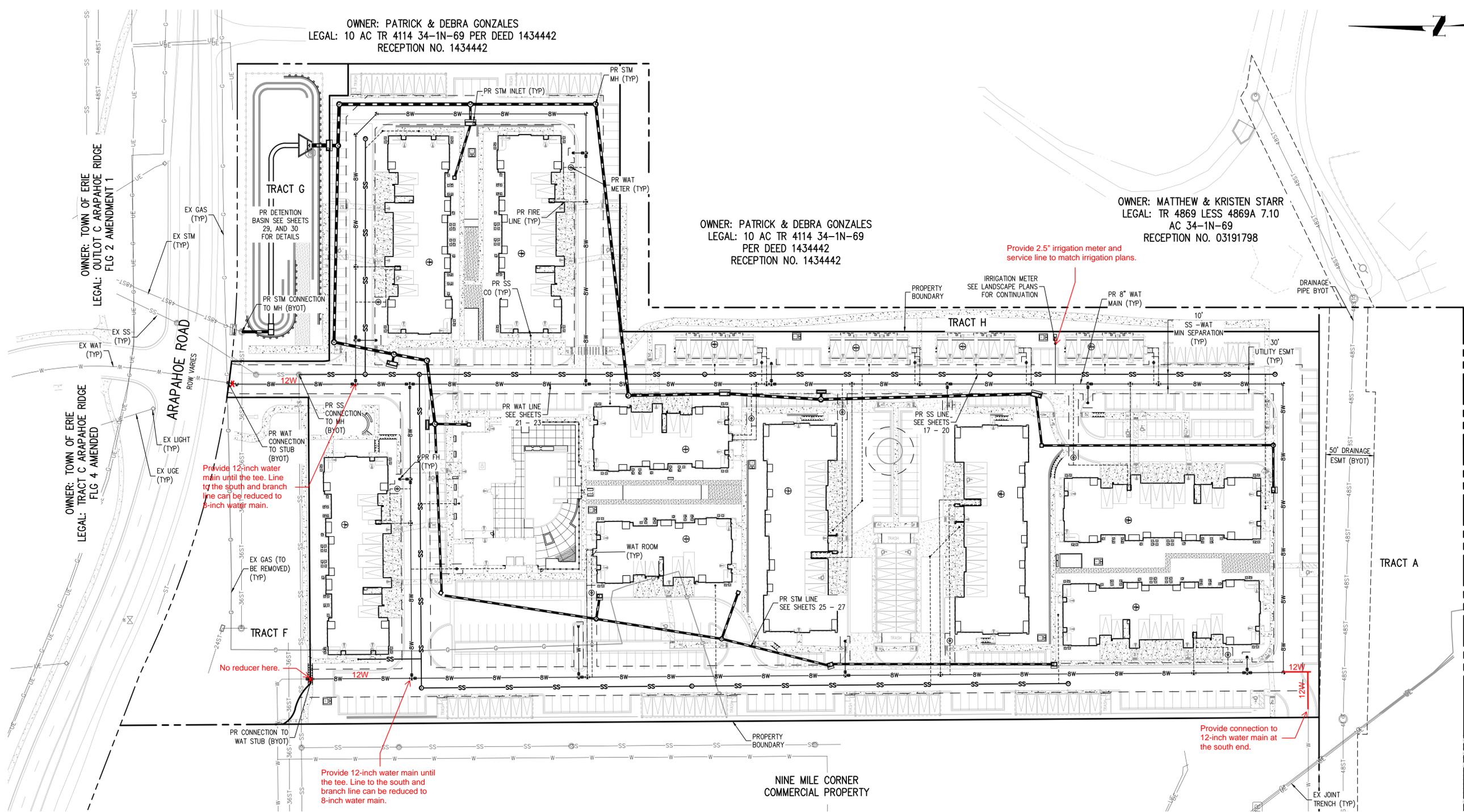
OWNER: PATRICK & DEBRA GONZALES
 LEGAL: 10 AC TR 4114 34-1N-69
 PER DEED 1434442
 RECEPTION NO. 1434442

OWNER: MATTHEW & KRISTEN STARR
 LEGAL: TR 4869 LESS 4869A 7.10
 AC 34-1N-69
 RECEPTION NO. 03191798

OWNER: CITY OF LAYAVETTE
 LEGAL: TRACTS C & D & E BEACON
 HILL REPLAT
 TRACT D

REPLAT OF BEACON HILL SUBDIVISION
 BLOCK 2, LOTS 1 TO 5
 RECEPTION NO. 487195

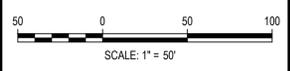
REPLAT OF BEACON
 HILL SUBDIVISION
 BLOCK 1, LOTS 1 TO
 14
 RECEPTION NO.
 487195



NOTES:

1. OVERALL PLAN DEPICTED IS INTENDED FOR GENERAL REFERENCE OF PROJECT DEVELOPMENT.
2. SEE APPROVED SANITARY PLAN SHEETS FOR DETAILS REGARDING SANITARY IMPROVEMENTS.
3. SEE APPROVED WATER PLAN SHEETS FOR DETAILS REGARDING WATER IMPROVEMENTS.
4. SEE APPROVED STORM SEWER PLAN SHEETS FOR DETAILS REGARDING STORM IMPROVEMENTS.
5. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE VERTICAL/HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING NOTIFICATION:
 - a. UTILITY NOTIFICATION CENTER OF COLORADO, 811. CALL THREE (3) BUSINESS DAYS PRIOR TO DIGGING, GRADING OR EXCAVATING FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.
 - b. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS.
 - c. PROVIDING NOTIFICATION AND RECEIVING MARKING OF UNDERGROUND MEMBER UTILITIES IN NO WAY CONSTITUTES PERMISSION TO PERFORM CONSTRUCTION.

FILE PATH: P:\HKS\ENGINEERING\UTILITIES\CD - OVERALL UTILITY PLANNING LAYOUT: OVERALL UTILITY PLAN
 5.12.2019 10:00 AM
 PLOTTED: THU 10/19/19 6:41:57 PM BY: RACHEL PATTON



OUTLOOK AT NINE MILE
 OVERALL UTILITY PLAN

ISSUE DATE: 11-08-2019		PROJECT #: 160602	
DATE	REVISION	COMMENTS	

PRELIMINARY
 NOT FOR
 CONSTRUCTION

SHEET NO.

16

16 OF 60

PROJECT SHEET *BASE DESIGN STANDARDS*

Complete one Project Sheet for each project that includes Stormwater Quality Control Measures.

SITE INFORMATION

Project Name:		
Project Location:		
Submitted Date:		Submitted By:
Acreage Disturbed:		
Existing Impervious:		New Net Impervious:
Review Date:		Reviewed By:
✓ Preparer	✓ TOE	Requirements
		Design Details are included for all Control Measures (CM)
		List or include a description of any Source CMs (i.e. preventing pollutants from contacting stormwater) or other non-structural CMs:
		Does project overlap multiple MS4 Jurisdictions?
		Yes
		No
		If project overlaps jurisdictions, provide written agreement designating responsibility for CM requirements, review, inspections

DESIGN STANDARDS

Design Standards may be used in combination, as necessary, to meet the requirements. Additional design methods may be considered if they comply with the MS4 Permit. Evaluation of suitability of Stormwater Quality Control Measures (CMs) is based on pollutant removal, flood attenuation and long-term maintenance. CMs must be designed in accordance with the most current version of [USDCM vol. 3, Chapter 4 “Treatment BMPs”](#) and the Town of Erie’s Standards and Specifications. CMs must also meet the specific requirements for each Design Standard used.

1. Indicate below, which Design Standards will be used for the project, and
2. Complete a separate, corresponding Design Standards checklist for each CM (e.g., WQCV, etc.)

<i>Design Standard</i>	<i># CMs</i>	<i>Location/Identifying information</i>
WQCV		
Pollutant Removal		
Runoff Reduction		
Regional WQCV Control Measure		
Regional WQCV Facility		

CHECKLIST WQCV Standard

WQCV STANDARD Criteria

Control measure(s) must be designed to provide treatment and/or infiltration of the Water Quality Capture Volume (WQCV) for 100% of the site.

Complete checklist if using the WQCV Standard to meet Design Standard requirements.

Project Name:		
Preparer	TOE	Requirements
		Control measure(s) provide treatment and/or infiltration of the WQCV for 100% of the site
		% of site treated:
		CM type: CM ID/location:
		See Drainage Report section:

If less than 100% of the site is treated, complete the following:

Preparer	TOE	Requirements
		% of site not treated by control measures (not to exceed 20% or 1 acre):
		% size (acres)
		Provide explanation that the excluded area is impractical to treat:
		Provide explanation that another CM is not practicable for the untreated area:

December 12, 2019



2480 W. 26th Avenue, Unit B225
Denver, Colorado 80211
Tel: +1 303-964-3333
Fax: +1 303-964-3355

Town of Erie, Engineering Division
P.O. Box 750
645 Holbrook Street
Erie, Colorado 80516

www.merrick.com

RE: REVIEW OF OUTLOOK AT NINE MILE SUBMITTAL

Dear Engineering Division:

We have reviewed the Outlook at Nine Mile submittal received on November 25, 2019. The submittal included a Phase III Drainage Report for Outlook Nine Mile (dated November 8, 2019), Construction Plans for Outlook at Nine Mile (dated November 8, 2019), and a Site Plan for Outlook at Nine Mile (dated November 8, 2019) by Harris Kocher Smith. We have the following comments to offer:

Phase III Drainage Report:

1. From the drainage map and the report, it appears that there was no consideration for offsite flows that are tributary to the site. Per Town criteria (Section 812), sites must accept peak historic flows from offsite. There are areas south and east of the Outlook site that appear to be tributary. Update the runoff calculations and the design and analysis of the storm sewer system and detention pond sizing to include the offsite tributary areas. Show the offsite tributary basins on the Drainage Plan. Also, on the Drainage Plan show existing contours 150 feet in every direction outside of the site boundary per Section 100 of the Town criteria.
2. It appears that the southern boundary of Basin OS-3 is along the edge of curb. However, from the contours it appears the basin divide should be located further north along the top edge of the detention pond retaining wall. Revise runoff and other sizing calculations with corrected areas for Basins M and OS-3.
3. It appears there is an area at the northwest portion of the site (Tract F) that was not included in runoff analysis neither for the Outlook at Nine Mile nor the overall planned development. Clarify how runoff from this area will be managed.
4. Basins H and K must be subdivided to accurately estimate the runoff tributary to Inlets D1 and F1, respectively. Also, provide sizing calculations for inlets D1 and F1 in Appendix D.
5. On the Drainage Plan and in the calculations, include design points at Inlet A12 in Basin A and Inlet C2 in Basin N. These design points will represent the upstream ends of storm sewer line A and line C, respectively, and should have designated design points labeled.
6. In the Rational Method calculations, Inlets C1 and C2 are not shown as line items like other inlets. Identify these inlets in the Rational Method calculations.

7. Sizing for Inlet A10 only considered runoff from Basin F (1.7 cfs in the 100-year event). From the Rational Method calculations, total surface runoff is 3.6 cfs from Basins F and C. Revise inlet sizing to account for the full tributary runoff to Design Point 1. Revise other calculations and construction plans as necessary.
8. Inlet sizing for Inlet A1 (Basin M) shows the major storm event flow as 6.2 cfs. This does not match the value of 5.1 cfs from the Rational Method calculations at this design point. Additionally, the proposed 10' Type R inlet does not have sufficient capacity to capture the 100-year storm event which contradicts the text. Resize the sump inlet to capture the full major storm event.
9. In Appendix D, provide a schematic plan view for the StormCAD analysis. On the StormCAD profiles, the labels are difficult to read since they overlap. Reposition labels so manhole and pipe information are easily discernable.
10. The full flow capacities, velocities, and resulting travel times for storm pipe flows used in the Rational Method calculations are incorrect compared to normal depth calculations. Therefore, the combined Rational Method flow values and flows used in the StormCAD analysis are also incorrect. Revise using appropriate values based on normal depth calculations.
11. The following comments relate to the design of the detention pond:
 - a. The water surface elevations in the text do not match those shown on Sheet 30 of the Construction Plans. Revise as necessary to match.
 - b. The 13.23 acres used to estimate the volume and 100-year release rate for the detention pond does not include offsite tributary areas (see comment 1 above). Revise the pond release rate and sizing to include all area tributary to the pond. However, coordination is needed with the design of the outfall storm sewer system that will be constructed per the Infrastructure plans for Nine Mile Corner since the release rate from this pond will influence the capacity of the downstream system. A maximum release rate of 12.5 cfs from the multi-family site detention pond was used to design the outfall storm sewer system.
 - c. Although referenced in the text, no detention pond sizing calculations were provided in Appendix D. Provide calculations including sizing of water quality and excess urban runoff volume (EURV) orifices and 100-year restrictor plate.
 - d. Provide sizing calculations for the forebay and trickle channel.
 - e. As shown on Sheet 29 in the Construction Plans, the fence along the maintenance access trail into the pond must be extended until the height of the retaining wall is less than 2.5' high.

Construction Plans

12. There are several missing references on the storm sewer plan and profile drawings (Sheets 24-28). For example, on Sheet 24, a callout states "Storm Line H See Sheet X" when it should reference Sheet 28. Revise all sheets to provide accurate references to other sheets and details.

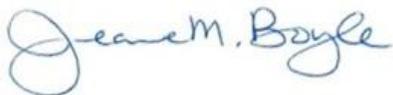
13. On Sheet 24 on the Storm Line A profile, fix the storm sewer pipes to shown them connected to Inlet A7.
14. On Sheet 25 on the Storm Line A profile, fix the downstream pipe to show it connected to Inlet A9.
15. On Sheets 25 and 26, Inlets A12 and B9, respectively, are specified as a “Modified Inlet Type R”. Provide details on how these inlets will be modified. Inlet B8 may also need to be modified due to the skew of the outlet pipe.
16. On Sheet 30, it appears that all of the elevations are approximately 3.8’ lower than corresponding elevations on other sheets. For example, the invert of the pipe to the forebay is 5238.47 on Sheet 30 and 5242.30 on Sheet 24. Clarify which elevations are correct and revise plans as necessary.
17. On Sheet 30, the Water Quality Outlet Structure Profile shows the invert of the trickle channel and the micropool water surface elevation at 5236.18. The trickle channel invert is required to be a minimum of 4” above the micropool elevation for initial surcharge depth. Revise design as necessary.
18. On Sheet 30, the maximum height of the wing walls at the forebay (i.e., Modified Impact Stilling Basin) is 5.5’ which exceeds the maximum allowable of 2.5’. Provide a railing or safety grate where the walls exceed 2.5’ high.

Site Plan

19. See above comments and update as needed.

Let us know if you have any questions.

Sincerely,
Merrick & Company



Jeanne M. Boyle, PE, CFM



Clare Steninger, PE



MOUNTAIN VIEW FIRE RESCUE

3561 N. Stagecoach Road • Longmont, CO 80504

(303) 772-0710 • FAX (303) 651-7702

December 4, 2019

Ms. Hannah Hippely
Town of Erie Community Development
P.O. Box 750
Erie, CO 80516

Dear Ms. Hippely:

I have reviewed the submitted material pertaining to the Nine Mile Corner Multi-Family development located south of Arapahoe Road and east of 107th Street in Erie (Case Number: SP-00832-2016). The Fire District does not object to the subdivision and subsequent development, provided the development is able to meet the requirements of the Fire District. All applicable codes as they pertain to water supply, fire hydrant locations and street designs must be met.

- Fire hydrant spacing appears to be satisfactory as shown on the plans submitted.
- Fire apparatus access appears to be satisfactory as shown on the plans submitted. Fire apparatus roads must be designed and maintained to support the imposed loads of fire apparatus (75,000 pounds) and must have a surface that provides all-weather driving capabilities at the time construction begins.
- Building construction plans and fire suppression plans must be submitted to the Fire District prior to the beginning of construction or installation.

The Fire District reserves the right to make further comments as development proceeds. Nothing in this review is intended to authorize or approve of any aspect of this project that does not comply with all applicable codes and standards. We appreciate being involved in the planning process, should you have any questions, please contact me at 303-772-0710 x 1121.

Sincerely,

LuAnn Penfold
Fire Prevention Specialist

lp12.04.19

October 5, 2017

MEMORANDUM

TO: Todd Bjerkaas

FROM: Charles M. Buck, P.E., PTOE

SUBJECT: Site Plan and Minor Subdivision

PROJECT: Nine Mile Corner
FHU # 95-190

I have reviewed the materials provided for the above referenced project, to be located on 43 acres in the southeast quadrant of the US 287/Arapahoe Road intersection. A mixed-use development is proposed; this submittal addresses the residential component of Nine Mile Corner. We have reviewed prior submittals for this development, per our referral responses dated January 18, 2017 and June 16, 2017.

A flash drive containing documents and drawings was provided. The materials included a response to comments (Norris Design, September 27, 2017), Road Construction Plans (Galloway, September 26, 2017), and Site Plan (HKS, September 27, 2017). I have looked at these materials specifically from the perspective of traffic engineering and transportation planning but not general civil or utility engineering. I have the following comments:

Traffic Impact Study – An updated Traffic Impact Study was not included in this submittal. The response to comments letter states that *“the Applicant is working with Town Staff and referral agencies to address these comments in a way that is satisfactory to all. At this time, a Traffic Report is not included. Upon resolution, a revised Traffic Report will be provided”*. Pending the revised report, my previous comments still stand.

Road Construction Plans - My previous comments on the Roadway Construction Plans have generally been addressed by the applicant. However, note that any proposed improvements to SH 7, SH 287, or the intersection of these two state highways, are subject to review and approval by the Colorado Department of Transportation (CDOT). This includes intersection geometrics and traffic control, auxiliary lane and taper dimensions, access location and restrictions, and any potential variances from CDOT standards.

Site Plan - My previous comments on the Site Plan have been addressed by the applicant.

The above constitutes my review of the materials provided. Please call if you have any questions or need additional information.



Northern Colorado Water Conservancy District

220 Water Avenue Berthoud, Colorado 80513
Phone 1-800-369-7246 • www.northernwater.org

October 5, 2017

Mr. Todd Bjerkaas
Town Planner
Town of Erie
P. O. Box 750
Erie, CO 80516

Dear Mr. Bjerkaas:

Thank you for your Notice dated November 7, 2017, regarding the proposed annexation of Nine Mile Corner located in the N $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 34, Township 1 North, Range 69 West into the Town of Erie.

These lands must be included within the boundaries of both the Northern Colorado Water Conservancy District (Northern Water) and the Municipal Subdistrict, Northern Colorado Water Conservancy District (Subdistrict) before any water service can be provided by the Town of Erie. Please refer to our letter to you dated June 13, 2017, a copy of which is enclosed for your information.

If you have any questions or need any additional information, please feel free to give me a call at 970-622-2216.

Sincerely,

Marilyn L. Conley
Inclusions Administrator

mc

cc: Mr. Paul Zilis

Town of Erie, Colorado

Development Referral

Town of Erie Community Development
 Town of Erie Parks & Recreation
 Town of Erie OSTAB
 Public Review
 Boulder Valley School District
 Colorado Department of Transportation
 Century Link Communications
 Comcast Commercial & Residential
 South Boulder Canon Ditch Company
 Arapahoe Ridge HOA
 Kerr-McGee Oil & Gas Onshore LP

Town of Erie Public Works
 Town of Erie Building Department
 Colorado Geologic Survey
 Mountain View Fire Protection District
 Felsburg Holt & Ullevig
 RTD
 NCWCD & Subdistrict
 XCEL Energy
 Left Hand Water District
 CDM Oil & Gas

Planner: Todd Bjerkaas

Date: June 5, 2017

Project: Nine Mile Corner

Applicant: Evergreen

Description: Site Plan and Minor Subdivision Plat

Location: Southeast Corner of Arapahoe Road and Highway 287

Legal Description: See Attached Materials

This application is submitted to you for review and comment. Please reply by **Tuesday, July 11, 2017**, so that we may give full consideration to your comments. Any response not received by this date may be deemed to be a positive response to the Town of Erie. Email responses can be sent to tbjerkaas@erieco.gov. If you have any questions about this application, please call 303-926-2773.

We have reviewed this application and find no conflicts with our interests

We have reviewed this application and find conflicts with our interests.

See comments below or attached letter.

Comments: This parcel must be included within both the Northern Colorado Water Conservancy District and the Municipal Subdistrict, Northern Colorado Water Conservancy District boundaries before any water Service can be provided.

Signature:  **Date:** June 13, 2017

Name (Please Print) Marilyn Conley

From: Brooke Seymour
To: [Development Referral](#)
Cc: [Todd Bjerkaas](#)
Subject: Outlook at Nine Mile - No Comments
Date: Wednesday, November 1, 2017 9:56:44 AM

This is in response to the request for our comments concerning the referenced project. This project does not include any UDFCD maintenance eligible features, so we have **no comments**. We do not need to receive any future submittals on this project.

We appreciate the opportunity to review this proposal. Please feel free to contact me with any questions or concerns.

Thank you,
Brooke

Brooke Seymour, P.E., CFM

Project Manager | Watershed Services

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT

2480 W. 26TH Ave. Suite 156-B | Denver, CO 80211

P: 303.455.6277 | www.udfcd.org

Protecting people, property, and the environment

From: [Darren Champion](#)
To: [Todd Bjerkaas](#)
Cc: [Farrell Buller](#); [Rob Crabb](#); [Sandy French](#)
Subject: Development Referral - 9 Mile Corner - Parks and Rec Comments
Date: Wednesday, November 22, 2017 10:22:56 AM
Attachments: [image001.png](#)

Hi Todd,

We have reviewed this application and find no conflicts with our interests.

Thanks,



Darren Champion *cpsi* | Parks and Open Space Project Coordinator

Town of Erie | Parks & Recreation Department

150 Bonnell Avenue | P.O. Box 750 | Erie, CO 80516

Phone: 303-926-2886 | Cell: 303-591-1280 | Fax: 303-665-9420

www.erieco.gov/parksandrec | [Facebook](#) | [Twitter](#) | [LinkedIn](#)

Erie, Colorado - the BEST place to raise a family!

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November 7, 2017



2480 W. 26th Avenue, Unit B225
Denver, Colorado 80211
Tel: +1 303-964-3333
Fax: +1 303-964-3355

Town of Erie, Engineering Division
P.O. Box 750
645 Holbrook Street
Erie, Colorado 80516

www.merrick.com

RE: REVIEW OF NINE MILE CORNER DRAINAGE SUBMITTAL

Dear Engineering Division:

We have reviewed the Nine Mile Corner resubmittal received on October 6, 2017. The submittal included a revised Phase II Drainage Report for Nine Mile Corner (Revised September 27, 2017) by Galloway & Company and a revised Phase III Drainage Report for Outlook at Nine Mile (September 27, 2017) by Harris Kocker Smith. We have the following comments to offer:

Phase II Drainage Report for Nine Mile Corner:

1. An emergency overflow should be provided for the settling pond. Calculations that provide the depth and velocities through the emergency overflow shall be provided. Verify that a geotechnical investigation has been performed for the existing berm to ensure the stability of the berm for temporary impoundment of water. Clarify how there will be an additional 2 feet of depth in the settling pond and no overtopping of the road in the 100-year event with no changes in the grading. Provide grading plans to show how the gap in the existing berm will be filled in. Clarify who will be responsible for the maintenance of the settling pond.
2. No development shall occur until the capacity of the downstream channel along 111th Street has been verified and determined to be able to accept the proposed runoff.
3. For the drainage criteria and design methods, use the most current version of the Urban Storm Drainage Criteria Manual (USDCM) and the Town of Erie Standards and Specifications. Update all calculations as needed.
4. Update the text to indicate that UD-Detention spreadsheet (v3.07, February 2017) was used for the design of on-site ponds.
5. The existing outfall system on the drainage map is visually unclear. The connections of the proposed ponds to the existing outfall storm system near the roadway is not shown; correct on the drainage map.
6. For the existing channel along the west of 111th Street, the Froude Number of 0.99 for a grass-lined channel exceeds the Town Criteria of 0.8. When the channel is redesigned (triggered by the Commercial and or Multi-Family developments at Nine Mile), either redesign the channel to have a Froude Number less than 0.8 or add erosion protection in the channel. Also provide adequate freeboard in the channel.

Phase III Drainage Report for Outlook at Nine Mile:

1. Per the Town of Erie criteria, Phase III drainage reports shall include hydraulic computations for the storm sewer systems including sewer profiles and open channel designs among others. Provide calculations of all hydraulic computations (hydraulic grade line).
2. Per the Town standards, existing off-site topography shall be shown for a distance of at least fifty feet in every direction. As a minimum, show all areas that drain to the site as indicated in the report, especially for off-site drainage basin O2.
3. There are several basins that have discrepancies between what is reported for areas in Section H of the report text and the calculations and drainage plans in the appendices. Clarify the correct area for basins below and update calculations and plans as necessary:

Basin	Area (acres)	
	Section H text	Appendices calculations and drainage map
O2	0.073	0.73
B2	0.7	0.47
C2	0.42	0.7
C7	1.12	1.08
L5	1.09	1.2
O1	0.02	0.05

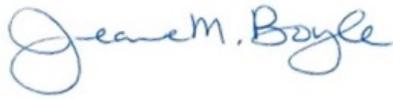
4. There are several inlets mentioned in the report text (Section H) that have labels that do not correlate to the inlets found on the construction plans or in the inlet sizing calculations in the appendix. Clarify the correct labeling and update as necessary:

Design Point	Inlet Size	Text label	Construction Plan label
1	10' Type R	A13	A9
2	5' Type R	A12	A8

5. Correct the text in Section H to specify a 10' instead of 5' Type R inlet at Design Point 5 in Basin A5 to match the calculations in the appendix and as the shown on the construction plans.
6. For Basin L5, update the text to reflect the correct design points.
7. In the calculations for Inlet D3 in Appendix D, the inlet capacity for the major event is calculated to be 4.19 cfs with 4.63 cfs of carryover. These values do not match the values in the rational method calculations (3.91 and 4.91cfs, respectively). Update as necessary.
8. The proposed development and EDB cannot be constructed until the outlet storm sewer system is in place.

9. The pond sizing calculations were not included in Appendix D. Provide all detention pond sizing calculations including outlet structure discharge curve, volume curves, forebay and micropool volumes, emergency overflows, trickle channel calculations, etc.
10. Per the USDCM, vertical walls are highly discouraged for safety and maintenance access reasons. The proposed walls exceed 2.5-feet high; therefore, a fence or railing are required. We recommend regrading the pond to reduce the wall height or eliminate the walls completely.

Sincerely,
Merrick & Company



Jeanne M. Boyle, PE, CFM



Clare Steninger, PE



The Town of Erie
645 Holbrook St.
P.O. Box 750
Erie, CO 80516
(303) 926-2773

Memo

To: Ryan McBreen
From: Todd Bjerkaas PLA
Date: December 8, 2017
Re: MS-000884-2017 Nine Mile Minor Subdivision Plat (2nd Review)
cc: Angie Grendahl, Jared Carlon, Maggie Lyons, Marty Ostholthoff, Deborah Bachelder, Russell Pennington, Matt Wiederspahn, Farrell Buller, Rob Crab, Darren Champion

Dear Ryan,

Thank you for resubmitting the Minor Subdivision Plat application materials for Nine Mile. Town staff reviewed the application materials and has compiled comments that need to be addressed and/or changed for the Plat. All code references herein are for Title 10-UDC (Code).

Please provide a written response to each of the Town's comments and referral agency responses with your re-submission and as specified in the Site Plan comment letter.

Minor Subdivision Plat

1. General Comments
 - a. Update the ALTA survey to match current Title Policy.
 - b. Provide a separate exhibit that overlays the plat and site plan on top of the PD map. Staff could not find a copy in the resubmittal packet.
 - c. *Condition of Approval:* Vacate all existing easements encumbering this and future development prior to final plat recordation.
 - d. *Condition of Approval:* A cross access agreement shall be recorded prior to final plat recordation.
 - e. *Condition of Approval:* Any required off-site easement agreements (utility and construction) shall be recorded prior to final plat recordation.
 - f. *Condition of Approval:* Record a Deed of Avigation Easement prior to plat recordation.
 - g. *Condition of Approval:* Vacate the 15' roadway and maintenance easement on the residential lot prior to final plat recordation.
 - h. *Condition of Approval:* Vacate the Arapahoe Road ROW by separate approval and instrument prior to final plat recordation.
2. Sheet 1 – Cover Sheet
 - a. *Technical Correction:* The Acceptance Certificate lists a Metro District or HOA. Metro District formation and/or HOA Incorporation (and documentation thereof) shall be

- required prior to plat approval.
 - b. *Technical Correction:* The owner(s) in the Dedication Statement is a placeholder that shall be filled in closer to plat approval and recordation.
 - c. Revise the Tract Summary Chart so that the Owner and Maintenance responsibility is the "Owner."
 - d. Delete Note 10.
 - e. *Technical Correction:* Update all placeholders in the notes when appropriate.
3. Sheet 2 – Plat
- a. Modify the oil and gas information on the plat per the recorded Relinquishment and Quitclaim. Coordinate with staff.
4. Sheet 3 – Plat
- a. Delineate and add Reception No. placeholder for the 30' ditch easement.
 - b. Provide easements for use by dry utility providers on Lot 1.

Public & Site Infrastructure Plans

5. General Comments
- a. Continue coordinating with RTD for the location and any improvements of a bus stop for the apartment residents.
 - b. Note that access locations on Highway 287 may be updated with future submittals.
6. Sheet 5
- a. The interim access for the MF is shown in the detention pond.
7. Sheet 6
- a. What is the ground cover/treatment on the terraces between and above the retaining walls?

Since review is a cumulative process and dependent on various criteria, we reserve the right to provide further comment(s) and request additional information upon receipt of this requested information. Please do not hesitate to contact me at 303.926.2773 for further clarification or with any questions or concerns that you may have.

Sincerely,

Todd Bjerkaas
Director Planning & Development



Town of Erie Open Space and Trails Advisory Board

From: Town of Erie Open Space and Trails Advisory Board (OSTAB)
To: Todd Bjerkaas, Director of Planning and Development
Date: November 7, 2017

Subject: Nine Mile Corner, Site Plan and Minor Subdivision
Document Date: September 27, 2017
Location: SE corner of US 287 and Arapahoe Rd.

OSTAB has reviewed the package materials, compared them to Town planning documents, and submit the following comments, questions, and recommendations for the Town's evaluation process.

Open Space and the Natural Areas Inventory (NAI):

Discussion: This roughly 47 acre parcel is being subdivided into 2 tracts: a 33 acre commercial tract on the western side, and a 14.37 acre high density residential tract on the east side. This Site Plan is for only the residential tract. Sheet 1 indicates there will be 304 dwelling units. The Town's Unified Development Code (UDC), section 10.6.3, requires 17 acres of dedicated open space for every 1,000 new residents; each dwelling units is assumed to have 2.85 occupants. We calculate that the required dedicated open space is 15.73 acres.

There is no proposed dedicated open space in this application. The Town at its discretion may require the developer to pay cash in-lieu of dedicating land. There are multiple criteria to determine whether or not to substitute cash for land, including:

1. Are any sites in the Natural Areas Inventory (NAI) within the application area. There are none;
2. Is there a location that is contiguous with, or connected to, adjacent open space or parks. There is none;
3. Would open space serve one or more of many functions, such as:
 - a. Preserving rural/agricultural lands;
 - b. Providing aquatic, wetland and riparian habitat and buffers; or
 - c. Preserving native wildlife habitat and their migration and travel corridors.

In our opinion, there is no location within this application area that essentially fulfills any of the functions described in the UDC. Thus we believe that cash, not land, should be used to meet the requirement for dedicated open space in the UDC

Recommendation: Pay cash in lieu of dedicating land to meet the open space requirement in the UDC.

Spine Trail and Neighborhood Trails:

Discussion: Spine Trails provide a town-wide network that connect neighborhoods, town facilities and nearby municipalities. There are no adjacent Spine Trails. The PROST (Parks, Recreation, Open Space and Trails) Master Plan does not contain a proposed spine trail on this property. Since there is not a sheet in the Site Plan entitled "Trails Plan", we used Sheet 8, Overall Landscape Plan, to review the location of the trails and buffers. Generally speaking, there is an 8' concrete trail in a landscaped buffer along the eastern and southern borders. On the southern side, it appears that the trail stops at the connection to Lucerne Drive. However, page 11 of the response contains the following:

"Provide a pedestrian sidewalk connection to the commercial property from the Lucerne Drive stub. With the wall design proposed, examine the elevation, slope, and alignment of this walk so it is viable in providing a connection to the commercial properties.

Response: Connection has been proposed and is in the process of being coordinated with the commercial property."

That sheet should be modified to clearly show that connection.

In the northeast quadrant, there is an 8' sidewalk, not a trail, from the intersection Arapahoe Road and Beasley Drive past the detention basin and 2 buildings. There is a buffer, but no trail, south of the second building. See Sheet 9 for details. We believe that there should be a meandering 8' sidewalk in the proposed buffer south of the second building.

It is probable that many residents of the proposed multi-family dwelling units will want to access the existing trails north of Arapahoe Rd, and may want to access the retail areas to the south along US 287. Page 19 of the response letter appears to confirm that sidewalks will be built on both Arapahoe Rd. and US 287 as part of this phase:

"Sidewalks along Arapahoe and Highway 287 shall be constructed with this plat. Delete "Future" from sidewalk labels.

Response: Sidewalks are labeled as proposed."

Safe pedestrian access across Arapahoe Road must be an important design component. Page 23 of the response letter contains the following:

"No plans are provided for the new signal at Arapahoe Road and Beasley Drive and potentially at the Safeway access on Arapahoe Road.

Response: Signal designs will be provided once final roadway improvements and phasing are finalized."

We believe that all intersections with traffic signals (Arapahoe and US 287, Arapahoe and Beasley, and Arapahoe and the Safeway access [if constructed]) must have pedestrian activated walk signals that stop all traffic at those intersections.

Recommendations:

1. Modify Sheet 8 to clearly show a connection to the commercial section to the west;
2. Build a meandering 8' concrete trail in the proposed landscaped buffer on the south of the 2 buildings that are east of the intersection of Arapahoe Road and Beasley Drive;
3. Ensure all intersections with traffic signals (Arapahoe and US 287, Arapahoe and Beasley, and Arapahoe and the Safeway access [if constructed]) have pedestrian activated walk signals that stop all traffic at those intersections.

Please pass this referral letter to the Applicant, and appropriate town departments, boards, and commissions. Thank you for your attention to these matters. OSTAB is available to discuss any of the above in more detail as needed.

Sincerely,

Open Space and Trails Advisory Board

Phil Brink
Bob Braudes
Dawn Fraser
Monica Kash
Nicole Littmann
Ken Martin (Chair)
Joe Martinez



Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303. 571. 3284
donna.l.george@xcelenergy.com

October 26, 2017

Town of Erie Community Development Services
645 Holbrook / PO Box 750
Erie, CO 80516

Attn: Todd Bjerkaas

Re: Nine Mile Corner Site Plan and Minor Subdivision Plat – 2nd referral

Public Service Company of Colorado's Right of Way & Permits Referral Desk acknowledges the comment responses for **Nine Mile Corner** and has no further comments at this time.

PSCo also has no concerns with the proposed right-of-way vacation as shown on the plat.

As a safety precaution, PSCo would like to remind the developer to call the **Utility Notification Center** at 1-800-922-1987 to have all utilities located prior to any construction.

Should you have any questions with this referral response, please contact me at 303-571-3306.

Donna George
Contract Right of Way Referral Processor
Public Service Company of Colorado



The Town of Erie
645 Holbrook St.
P.O. Box 750
Erie, CO 80516
(303) 926-2773
FAX (303) 926-2706

Memo

To: Ryan McBreen

From: Todd Bjerkaas

Date: July 21, 2017 (*revised August 4, 2017*)

Re: MS-000884-2017 Nine Mile Minor Subdivision Plat
SP-000832-2016 Nine Mile Site Plan

Community Development Review Comments from Development Review Team Meetings on July 13, 2017 and July 20, 2017

cc: Angie Grendahl, Jared Carlon, Maggie Lyons, Marty Ostholthoff, Gary Behlen, Russell Pennington, Matt Wiederspahn, Farrell Buller, Rob Crab, Darren Champion

Dear Ryan,

Thank you for submitting the Minor Subdivision Plat and Site Plan applications for Nine Mile. Town staff reviewed the application materials at the July 13th and July 20th Development Review Team (DRT) meetings and compiled comments that need to be addressed and/or changed for the Plat and Site Plan. Redlines of the sheets are attached as well for reference. All code references herein are for Title 10-UDC (Code). Note that Public Works and Parks and Recreation comments are being included under separate cover.

Please provide a written response to each of the Town's comments and referral agency responses below with your re-submission. Staff proposes to meet with you and your team to go over these comments prior to any re-submission. The Minor Subdivision and Site Plan resubmittal shall contain:

- A PDF of the resubmittal
- 3 copies – half size sheets of the revised plans (CD, PW, Public) and all response letters to the Town
- 3 copies – full size sheets of the revised plans (CD, PW, P&R)
- USB flash drives for all referral agencies needing additional or revised application materials.

Minor Subdivision Plat

1. General Comments
 - a. Update the ALTA survey.
 - b. Rename the plat to Nine Mile Filing No. 1.
 - c. Provide a 1" border around the entire sheet per Boulder County Recorder requirements.

- d. Per the Nine Mile Corner PD – Development Plan, the High Density Residential Planning Area is +/- 14 acres in size, consistent with the Comprehensive Plan's maximum of 30 percent residential for the Regional Commercial Land Use. The area of the plat outside of ROW dedication is 47.243 acres. The maximum size of the residential lot in the plat is 14.17 acres. The plat (and the multi-family Site Plan) shows the lot as 15.137 acres in size.
 - e. Add the following items to the Title Block for each sheet: the project number of MS-000884-2017; the total number of lots and tracts; and the total acreage of the plat.
 - f. Change all No. 107th Street labels to Highway 287.
 - g. Provide a separate exhibit that overlays the plat and site plan on top of the PD map.
 - h. Vacate all existing easements encumbering this and future development prior to final plat recordation.
 - i. A cross access agreement shall be recorded prior to final plat recordation.
 - j. Any required off-site easement agreements (utility and construction) shall be recorded prior to final plat recordation.
 - k. Record a Deed of Avigation Easement prior to plat recordation.
 - l. Conduct a Neighborhood Meeting per the UDC.
 - m. See redlines for technical adjustments and comments.
2. Sheet 1 – Cover Sheet
- a. Add the Planning Commission public hearing certificate.
 - b. Fill in the BOT certificate with the subdivision names.
 - c. The Acceptance Certificate lists a Metro District or HOA. Metro District formation and/or HOA Incorporation (and documentation thereof) shall be required prior to plat approval.
 - d. Change the Clerk and Recorder Certificate from Weld to Boulder.
 - e. The owner(s) in the Dedication Statement is a placeholder that shall be filled in closer to plat approval and recordation.
 - f. Reduce the limits of the Vicinity Map to only ~1 mile radius around the site. Add roads to the Vicinity Map.
 - g. Add a Tract Summary Chart that includes the Tract Name, Use, Owner, and Maintenance Responsibility.
 - h. Remove all title exceptions from the plat.
 - i. Add the following notes:
 - X) Notice: According to Colorado Law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.
 - X) Tract _ is for a park area and shall be maintained by the subdivider, its successor or assigns.
 - X) Utility and drainage easements, labeled hereon, shall be granted for the installation and maintenance of sanitary sewer lines, water lines, storm drainage facilities, surface drainage and for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric gas, television, cable, and telecommunications facilities, (dry utilities) and all necessary and convenient appurtenances thereto, together with a perpetual right of ingress and egress for installation, maintenance, and replacement of such lines and appurtenances. Said easements and rights are to be utilized in a responsible and prudent manner.
 - X) A blanket drainage easement shall be granted over and across Lots __ and Tracts __ for the installation and maintenance of drainage lines and all necessary and convenient appurtenances thereto, as well as surface drainage, together with a perpetual right of ingress and egress for installation, maintenance, and replacement of such lines and appurtenances. Said

easements and rights are to be utilized in a responsible and prudent manner. This blanket easement is restricted to those areas outside of the building footprints.

- X) A perpetual easement over and across Lots __ and Tracts __ shall be granted for the public access; provided that the aforesaid easement shall be restricted to the location of sidewalks, pedestrian paths, streets, parking lots, parks, common areas and landscaped areas as reflected on and constructed according to a site improvement plan accepted and approved by the Town of Erie.
- X) A perpetual easement over and across Lots __ and Tracts __ shall be granted for emergency public access; said easement being subject to restrictions and requirements of the Town of Erie Municipal Code.
- X) Maintenance Definition: Maintenance is the process of preserving capital improvements, structures, development, or systems to meet its function or original intent of the facility. This is the preservation, conservation, keeping in good conditions, operating safely, operating efficiently, testing, inspection, servicing, repairing, grading, cleaning, picking up trash and debris, pest control, painting, mowing, pruning, and prolonging of these facilities. Maintenance also includes the provision of financial support to maintain the facilities. Facilities include but are not limited to: landscaping, open areas, grass, shrubs, trees, playgrounds, site furniture and fixtures, retaining walls, signs, sidewalks, drainage structures such as ponds, swales, drain pans, inlets, and outlet structures.

3. Sheet 2 – Plat

- a. The commercial portion of the plat shall be a future development tract (Tract A).
- b. The residential portion of the plat shall be Lot 1.
- c. Add the Reception No. for the 30' ditch easement.
- d. Vacate the 15' roadway and maintenance easement on the residential lot.
- e. Increase the size of the 20' Storm Drainage Easement to 30'.
- f. Add a 30' easement for the water main on Block 1 (Tract A).
- g. The ROW to be vacated shall be vacated prior to the plat by separate approval and instrument. On this plat, show this area as if it has already been vacated.
- h. Modify the oil and gas information on the plat per the recorded Relinquishment and Quitclaim.
- i. Tie the P&A well to a property corner. Monument per state requirements.
- j. Add utility easements around the perimeter of lots and tracts.
- k. Provide easements for use by dry utility providers.
- l. Provide drainage easements for the detention ponds and the storm sewer.

Site Plan

4. General Comments

- a. Coordinate with staff to provide an exhibit showing a potential commercial layout to ensure the depth and size of the remaining commercial tract is viable.
- b. Code requires bicycle parking for the multi-family units (10.6.5.G.1).
- c. At a unit count of 300, a 0.43 acre Pocket Park is required. Dimension this area on the plans and include an enlargement showing how the park meets the minimum Pocket Park Component Standards of the Town of Erie Parks, Recreation, Open Space and Trails Master Plan (PROST).
- d. Move the scale to the bottom right hand corner.
- e. Insert an Overall Site Plan as the second sheet.
- f. Provide a 5' setback to the accessory buildings and parking areas on the west property line (PD Dimensional Standards Table).

- g. Provide additional sidewalks/pedestrian connections and curb ramps for continuous circulation between building entrances as shown in the redlines.
 - h. Provide irrigation plan sheets.
 - i. Add notes to bury any overhead lines.
 - j. Provide an exhibit showing the distance of resident and guest parking from the entrance of the building the parking is intended to serve. This off-street parking shall be located within 200 feet of the primary building entrance (10.6.6.D.c).
 - k. Conduct a Neighborhood Meeting per the UDC.
 - l. Move all walls outside of utility easements.
 - m. There are some misspelled words in the set.
 - n. See redlines for technical adjustments and comments.
5. Sheet 1
- a. Add a Parks and Open Space Summary Chart.
 - b. In the Site Data Summary Chart, add a breakdown of unit types (studio vs. 1 bedroom vs. 2 bedroom, etc.) and the total number of units to calculate parking requirements.
6. Sheet 2
- a. In multi-family developments, sidewalks along all public and private streets shall be detached and include a tree lawn minimum of 8' in width (10.6.5.F.1.c).
 - b. Manhole covers are shown within the trail/sidewalk. Move outside of trail.
 - c. Provide dimensions along the west property line to the edge of parking spaces.
 - d. Dimension the width of the parking lot medians.
 - e. Keep the sidewalk detached along the north drive stub to the commercial site.
 - f. Provide a street stub into the property to the east for future cross access if developed.
 - g. What appears to be a fence line type is shown on the north and south sides of the detention pond. Please call out and provide a detail.
 - h. Given the heights of the wall at the detention pond on Sheet 20, portions of the fence may need to meet guardrail requirements.
 - i. Provide a fence along the east property line.
 - j. Double lines are shown at the edges of roads and curb ramps at the apartment building garage parking aprons. Double lines are consistently used in the plans as identifying vertical curbs. Show the extents of flush or rollover curb (typical of all sheets).
 - k. The curb ramps on either side of these parking aprons are oriented to the street and would cause individuals using the accessible route to enter into the street in order to access building entrances. Provide an accessible route from sidewalks to building entrances (typical of all sheets).
 - l. Accessible paths from sidewalks to building entrances cross the parking aprons at building garages. To receive credit (and to avoid blocking accessible routes) as a parking stall, the depth of the stall between the garage door and the accessible route shall be a minimum of 20'.
 - m. Provide a design detail to differentiate the accessible route and the tandem garage parking stall. This could be colored concrete, pattern, or other enhancement.
 - n. Delete background items that have been/will be removed from the Site Plan sheets 2-4. If this removal information is needed, please include it in a separate demolition/removal plan.
 - o. Provide dimensions between buildings.
 - p. Provide typical dimensions for walks and trails.
 - q. Show utility easements from the plat.
 - r. Show a sidewalk connection from the east terminus of the Arapahoe Road sidewalk back south to the development.
 - s. Parking lot islands are to be a minimum of 10' in width (10.6.4.E.8.e.i).
 - t. Widen the tree lawn along Arapahoe Road north of the detention pond to at least 7'.

- u. Dimension the distance between the Clubhouse/Leasing Office and the secondary building. Check the building code for separation requirements.
 - v. By staff's count, 11 handicap stalls are shown. Coordinate with staff to determine the number and location required by the UDC and ADA Guidelines.
 - w. Are mailboxes/kiosks accommodated at the clubhouse?
7. Sheet 3
- a. Show the limits of the fence around the pool area.
 - b. Provide dimensions between the edge of drives/parking areas and the building. Dimension to be a minimum of 10'.
 - c. Meet with staff to discuss the orientation and pedestrian access to the carriage units.
 - d. Adjust the location of garages and the landscaped islands/medians to provide a visual and physical connection between buildings 7 and 10. See redlines for concept.
8. Sheet 4
- a. Pull the trail to the western edge of the trail easement along the Starr property's buildings.
 - b. Provide pedestrian connections from Building 14's sidewalks south to the trail. Island locations may need to be adjusted/aligned and stairs may need to be incorporated into the wall at the western connection.
 - c. Provide a pedestrian sidewalk connection to the commercial property from the Lucerne Drive stub. With the wall design proposed, examine the elevation, slope, and alignment of this walk so it is viable in providing a connection to the commercial properties.
 - d. At the southeast and southwest corners of Building 14, walls are shown within the ditch easement. Move all walls outside of easement.
 - e. Show a barrier/landscaping/delineation at the end of the Lucerne Dr. stub.
9. Sheet 6
- a. The area shown in the landscape calculation table for interior areas is 181,836.5 sf. The planted area shown on the cover sheet in the Site Data Summary chart is 186,087 sf. Reconcile the two area calculations and modify plans accordingly.
 - b. In the plant replacement table, change the text from "maximize water consumption" to "minimize water consumption" or "maximize water conservation."
10. Sheet 8
- a. The parking area north of Building 2 is visible from Arapahoe Road. Show a combination of berming, walls, fencing, landscaping, etc., between 3' and 4' in height to screen this parking area (10.6.2.C.2.e).
 - b. All ground mount and wall mount mechanical equipment and meters are to be screened (10.6.4.G.7 & 9), typical of all landscape sheets. Show and call out locations of ground mount and wall mount mechanical equipment and meters.
 - c. Show sight distance triangles, typical of all landscape sheets.
 - d. Add plant callouts, typical of all landscape sheets.
 - e. The bed (staff assumes mulch) hatch is turned off on all sheets.
11. Sheet 10
- a. Provide a detail callout and detail for the sign.
12. Sheet 11
- a. Add landscaping in the island north of the leasing center.
 - b. Show ground cover in the parking lot median.
 - c. Add trees to parking lot islands, typical of all sheets.

13. Sheet 17
 - a. Does the secondary building southwest of the Clubhouse require a water or sanitary sewer services?
 - b. Line sizes and service sizes are missing from certain areas of the plans.
 - c. Where does the development anticipate running dry utilities? Show separate easement locations for dry utilities in the plat.
 - d. What appear to be area drains (circle symbol with three horizontal lines) are not connected to the stormwater system.
 - e. Provide easements for the storm system.
14. Sheet 19
 - a. Provide a water stub to the commercial site.
 - b. Label the ditch pipe.
15. Sheets 20-22
 - a. Show existing grades on properties to the east and the proposed grades tying in.
16. Sheet 23
 - a. The lighting on the carriage houses may change per previous comments. Staff prefers that bollard lights be used along the trail instead of relying on the rear wall sconces on the carriage houses.
 - b. Add bollard lights along the trail to the Lucerne Dr. stub.
 - c. Add lighting at the entry drive's intersection with Arapahoe, if not already incorporated into a traffic signal.
 - d. Add shields to the SA-3 and SA-4 fixtures on the south end of the site adjacent to Beacon Hill.
17. Sheet 24
 - a. Provide the light pole height for the SA3, 4, and 5 fixtures installed in landscape areas.

Public & Site Infrastructure Plans

18. General Comments
 - a. Certain sheets are identified as preliminary. This set is for final construction document acceptance.
 - b. Coordinate with RTD for the location and any improvements of a bus stop for the apartment residents.
 - c. Note that all ground mounted utility equipment (i.e. transformers) must be set back a minimum of 100-feet from the intersection of two public streets (10.6.4.G.9.a).
 - d. Move the north arrow and scale to the bottom right hand corner of sheets.
 - e. Show location and easement for interim secondary emergency access to the multi-family site.
 - f. Provide landscape plans for those areas disturbed by construction.
19. Sheet 2
 - a. Sidewalks along Arapahoe and Highway 287 shall be constructed with this plat. Delete "Future" from sidewalk labels.
20. Sheet 3
 - a. The west water line from Arapahoe Road will serve the commercial area. Show a tee and valve that provides a connection point for a future commercial area main.
21. Sheet 4

- a. The curve of the drive between the two commercial detention ponds is awkward with tight radii. As a part of the commercial concept exhibit mentioned in the Site Plan comments, staff will review the shape and location of the detention ponds.

22. Sheet 15

- a. The retaining walls do not match those shown on the multi-family site plan. Coordinate sets.

Since review is a cumulative process and dependent on various criteria, we reserve the right to provide further comment(s) and request additional information upon receipt of this requested information. Please do not hesitate to contact me at 303.926.2773 for further clarification or with any questions or concerns that you may have.

Sincerely,

Todd Bjerkaas
Senior Planner

NINE MILE SUBDIVISION FILING NO.1, BLOCK 2 LOT 1

A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

14 15 ACRES
SITE PLAN - SP-000832-2016

SITE DATA SUMMARY CHART		
ZONE DISTRICT:		
ITEM	SQUARE FOOTAGE	% OF GROSS SITE
GROSS SITE AREA	659,355	100.0%
- BUILDING FOOTPRINT	132,789	20.1%
- PARKING/ROADS (INCLUDING PLANTED INTERIOR ISLANDS)	217,898	33.0%
HARDSCAPE TOTAL	350,687	53.2%
- PLANTED AREA (EXCLUDING PLANTED INTERIOR PARKING ISLANDS)	185,087	28.2%
- EXISTING VEGETATION	22,783	3.5%
- TRAILS AND SIDEWALKS	99,798	15.1%
LANDSCAPE TOTAL	308,668	46.8%
ITEM	DESCRIPTION	
BUILDING SIZE: CLUBHOUSE - 1 STORY		
- RESIDENTIAL	5,603 SQ. FT.	
TOTAL (1 BUILDING)	5,603 SQ. FT.	
BUILDING SIZE: CARRIAGE UNITS - 2 STORIES		
- RESIDENTIAL	3,754 SQ. FT.	
TOTAL (4 BUILDINGS)	15,016 SQ. FT.	
BUILDING SIZE: 18-PLEX - 3 STORIES		
- RESIDENTIAL	20,658 SQ. FT.	
TOTAL (2 BUILDINGS)	41,316 SQ. FT.	
BUILDING SIZE: 28-PLEX - 3 STORIES		
- RESIDENTIAL	32,306 SQ. FT.	
TOTAL (6 BUILDINGS)	193,830 SQ. FT.	
BUILDING SIZE: 44-PLEX - 4 STORIES		
- RESIDENTIAL	52,478 SQ. FT.	
TOTAL (2 BUILDINGS)	104,956 SQ. FT.	
TOTAL (ALL BUILDINGS)	361,381 SQ. FT.	
PARKING		
- TOTAL REQUIRED (SEE TABLE)	676	
- PROVIDED (INCLUDING HANDICAP)	612	
- HANDICAP PROVIDED	8	

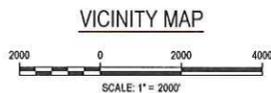
BREAK DOWN PARKING FOR RESIDENTS BY UNIT TYPE AND FOR GUESTS.

PROVIDE A SUMMARY OF UNIT TYPES & QUANTITIES

PARKS & O.S. SUMMARY CHART

TYPE	REQUIRED	PROVIDED
P.P.	0.43 AC	8.8 AC
N.P.	2.57 AC	0* AC
C.P.	4.28 AC	0* AC
O.S.	14.54 AC	0* AC

* PARK FEE & FEE W-L-100 NOTE



LEGAL DESCRIPTION
A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

ADD OVERALL S.P.

SHEET INDEX	
1	COVER SHEET
2	SITE PLAN
3	SITE PLAN
4	SITE PLAN
5	LANDSCAPE NOTES
6	LANDSCAPE SCHEDULES AND CHARTS
7	OVERALL LANDSCAPE PLAN
8	LANDSCAPE PLAN
9	LANDSCAPE PLAN
10	LANDSCAPE PLAN
11	LANDSCAPE PLAN
12	LANDSCAPE PLAN
13	LANDSCAPE PLAN
14	LANDSCAPE DETAILS
15	LANDSCAPE DETAILS
16	LANDSCAPE DETAILS
17	OVERALL UTILITY PLAN
18	OVERALL UTILITY PLAN
19	OVERALL UTILITY PLAN
20	GRADING PLAN
21	GRADING PLAN
22	GRADING PLAN
23	SITE PHOTOMETRIC PLAN
24	SITE LIGHT FIXTURES
25	BLDG A - ELEVATIONS
26	BLDG A - ELEVATIONS
27	BLDG B - ELEVATIONS
28	BLDG B - ELEVATIONS
29	BLDG C - ELEVATIONS
30	BLDG C - ELEVATIONS
31	ACCESSORY ELEVATIONS
32	ACCESSORY ELEVATIONS
33	CARRIAGE ELEVATIONS
34	CARRIAGE ELEVATIONS
35	CLUBHOUSE ELEVATIONS
36	CLUBHOUSE ELEVATIONS

- IRRIGATION

SITE PLAN APPROVAL CERTIFICATE	
THIS SITE PLAN HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH APPLICABLE TOWN OF ERIE REGULATIONS.	
DIRECTOR OF COMMUNITY DEVELOPMENT	DATE
PLANNING COMMISSION CHAIR (IF APPLICABLE)	DATE
THE UNDERSIGNED AS THE OWNER OR OWNER'S REPRESENTATIVE OF THE LANDS DESCRIBED HEREIN, HEREBY AGREES ON BEHALF OF HIMSELF/HERSELF, THEIR HEIRS, SUCCESSORS, AND ASSIGNS TO DEVELOP AND MAINTAIN THE PROPERTY DESCRIBED HEREON IN ACCORDANCE WITH THIS APPROVED SITE PLAN AND IN COMPLIANCE WITH THE TOWN OF ERIE UNIFIED DEVELOPMENT CODE AND MUNICIPAL CODE.	
OWNER SIGNATURE	OWNER PRINTED NAME
ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 2017	
BY _____ AS _____	
WITNESS MY HAND AND OFFICIAL SEAL	
NOTARY PUBLIC	
MY COMMISSION EXPIRES: _____	

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HarrisKocherSmith.com

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Evergreen
Development | Services | Investments
EVERGREEN DEVCO, INC.
P.O. Box 271069
Littleton, Colorado 80127
Ph: 602-808-8600
Fax: 602-567-7147

ARCHITECT:
KEPHART
ARCHITECTS
2555 Walnut Street
Denver, Colorado 80205
Ph: 303-832-4474
Fax: 303-623-6311

CIVIL ENGINEER:
Galloway
Planning Architecture Engineering
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
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Fax: 303.770.3636

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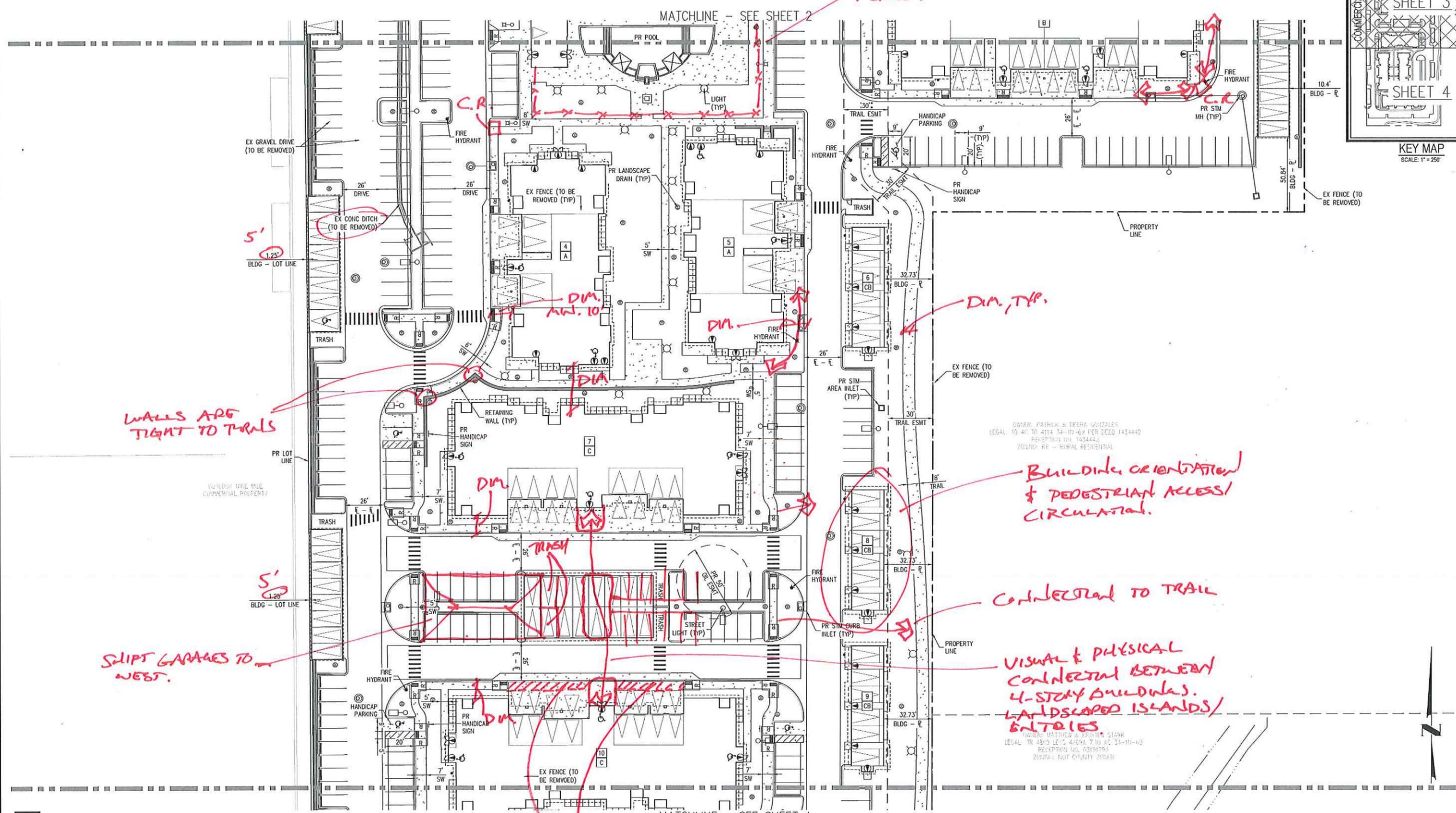
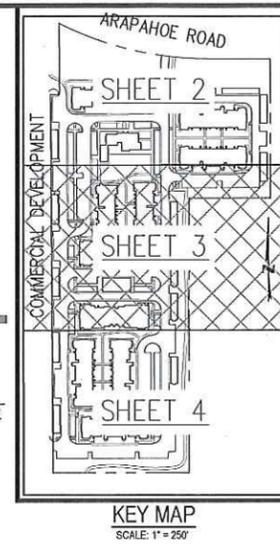
LANDSCAPE ARCHITECT:
NORRIS DESIGN
Planning | Landscape Architecture
1101 Bannock Street
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NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

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15 ACRES
SITE PLAN - SP-000832-2016



WALLS ARE TIGHT TO TRAILS

SLIPT GARAGES TO WEST.

BUILDING ORIENTATION & PEDESTRIAN ACCESS/ CIRCULATION.

CONNECTED TO TRAIL

VISUAL & PHYSICAL CONNECTION BETWEEN 4-STORY BUILDINGS. LANDSCAPED ISLANDS/ BAYTILES

STAMPED OR COLORED CONCRETE, ETC. TO DELINEATE ACCESSIBLE ROUTE FROM PARKING STALL, TYP. ALL BUILDINGS.

OWNER: PATRIK & DEBRA GONZALES
LEGAL: 10 AC TO 4114 34-10-64 PER DCO 1434442
REC-EXTRAD 101, 1434442
200109-RR - RURAL RESIDENTIAL

OWNER: SP111014 & TRAILER STARR
LEGAL: TR 4219 LEV'S 4/25/14 7.30 AC 34-10-63
RECEPTION 101, 03191794
200109-TWT COUNTY 200811

NOTE:
SEE LANDSCAPE SHEETS FOR WALK/TRAIL MATERIAL SPECIFICATIONS.



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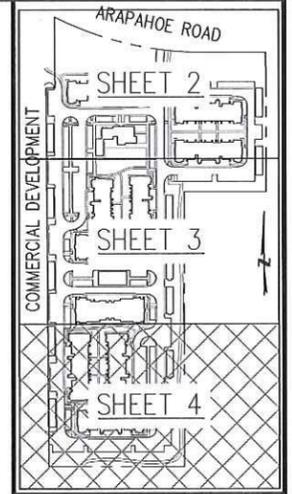
NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

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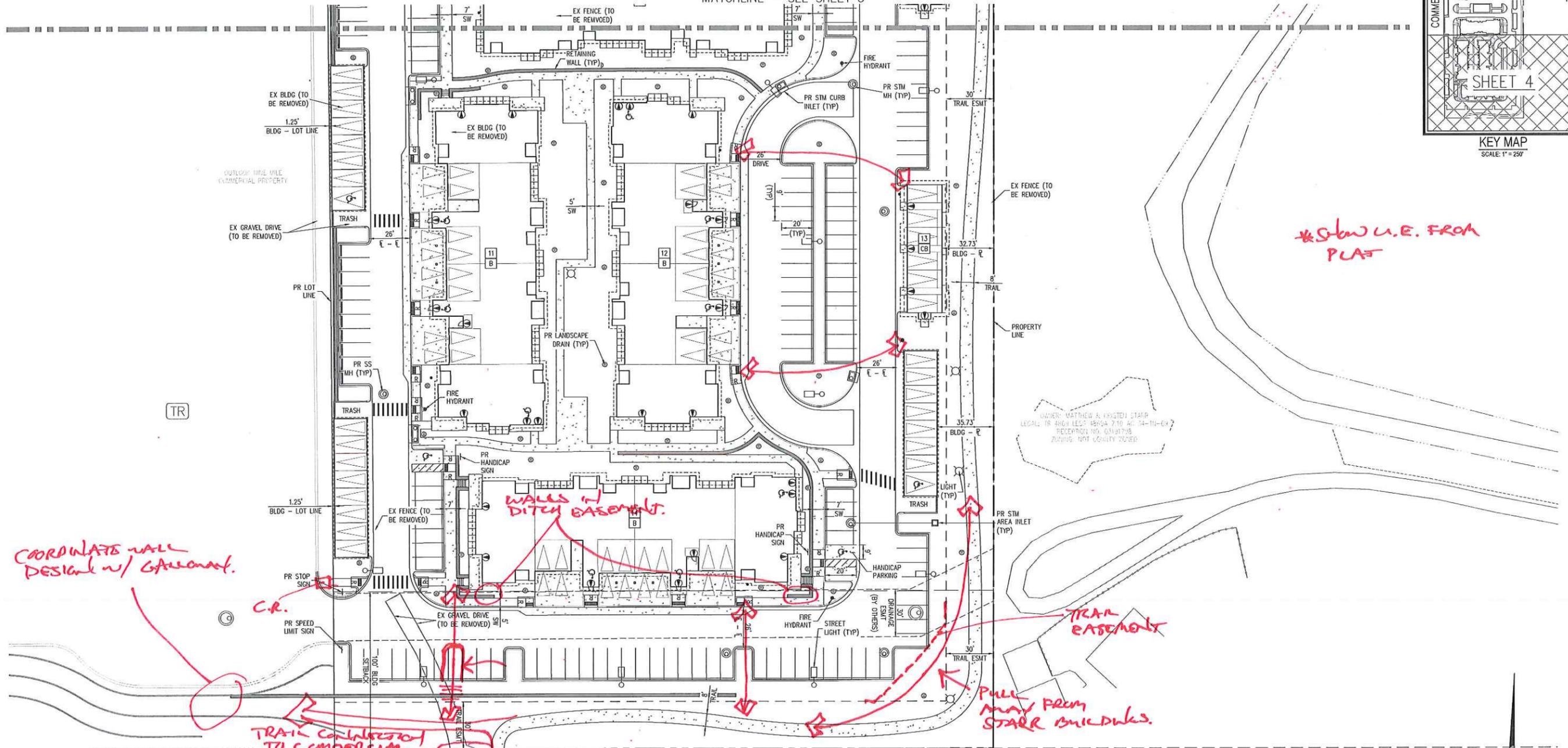
15 ACRES

SITE PLAN - SP-000832-2016

MATCHLINE - SEE SHEET 3



KEY MAP
SCALE: 1" = 250'



COORDINATE WALL DESIGN w/ CONTRACTOR.

WALLS w/ DITCH EASEMENT.

TRAIL easement

PULL AWAY FROM STAIR BUILDINGS.

TRAIL connected TO COMMERCIAL

PROVIDE DESIGN / BARRIER @ END OF ROADWAY.

**SHOW U.E. FROM PLAT*



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NOTE:
SEE LANDSCAPE SHEETS FOR
WALK/TRAIL MATERIAL SPECIFICATIONS.

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

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15 ACRES SITE PLAN - SP-000832-2016

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NORRIS DESIGN
Landscape Architecture & Project Management

LANDSCAPE PLANT LIST

SYM.	BOTANICAL NAME	COMMON NAME	SIZE & COND.
DECIDUOUS TREES			
ACE	ACER SACCHARUM 'BAIRSTA'	FALL FIESTA SUGAR MAPLE	2.5' CAL. B&B
CAL	CATALPA SPECIOSA	WESTERN CATALPA	2.5' CAL. B&B
GIN	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO	2.5' CAL. B&B
GRT	KOELREUTERIA PANICULATA	GOLDENRAIN TREE	2.5' CAL. B&B
KCT	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2.5' CAL. B&B
OAK	QUERCUS X MACDANIELII 'CLEMONS'	HERITAGE OAK	2.5' CAL. B&B
RLI	TILIA CORDATA 'GLENLEVEN'	GLENLEVEN LINDEN	2.5' CAL. B&B
SHU	QUERCUS SHUMMARDI	SHUMMARD OAK	2.5' CAL. B&B
SCH	SOPHORA JAPONICA 'REGENT'	JAPANESE PAGODA TREE	2.5' CAL. B&B
EVERGREEN TREES			
AUS	PINUS NIGRA	AUSTRIAN PINE	6' HT. MIN.
BOP	PINUS LEUCODERMIS	BOSNIAN PINE 'MINT TRUFFLE'	6' HT. MIN.
BSP	PICEA PUNGENS 'BAKERI'	BAKERI SPRUCE	6' HT. MIN.
FSP	PICEA PUNGENS 'FASTIGIATA'	FASTIGIATE BLUE SPRUCE	6' HT. MIN.
PON	PINUS PONDEROSA	PONDEROSA PINE	6' HT. MIN.
PVP	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID'	VANDERWOLF PINE	6' HT. MIN.
ORNAMENTAL TREES			
ABM	ACER X FREEMANII 'JEFFERSRED'	AUTUMN BLAZE MAPLE	2.0' CAL. B&B
ABS	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE SERVICEBERRY	6' HT. CLUMP
OCH	CRATAEGUS LAEVIGATA 'CRIMSON CLOUD'	CRIMSON CLOUD HAWTHORN	2.0' CAL. B&B
GMT	ACER GINNALA	GINNALA MAPLE	2.0' CAL. B&B
PRF	MALUS 'PRAIRIEFIRE'	PRAIRIEFIRE CRABAPPLE	2.0' CAL. B&B
SPR	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2.0' CAL. B&B
DECIDUOUS SHRUBS (3' SPREAD)			
ART	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE DOGWOOD	#5 CONT.
DCM	DAPHNE X BURKWOODI 'CAROL MACKIE'	CAROL MACKIE DAPHNE	#5 CONT.
GFS	SPIREA JAPONICA 'GOLDFLAME'	GOLDFLAME SPIREA	#5 CONT.
HKO	DIERVILLA X KODIAK 'ORANGE'	KODIAK ORANGE HONEYSUCKLE	#5 CONT.
KEL	CORNUS SERICEA 'KELSEY'	KELSEY DOGWOOD	#5 CONT.
LMS	SPIREA X BUMALDA 'LIMEMOUND'	LIMEMOUND SPIREA	#5 CONT.
ORB	BERBERIS THUNBERGII 'ORANGE ROCKET'	ROCKET ORANGE BARBERRY	#5 CONT.
DECIDUOUS SHRUBS (5' SPREAD)			
FLA	PRUNUS GLANDULOSA	FLOWERING ALMOND	#5 CONT.
FQP	CHAENOMELES JAPONICA 'CAMEO'	PINK FLOWERING QUINCE	#5 CONT.
GLS	RHUS AROMATICA 'GROW-LOW'	GRO-LOW FRAGRANT SUMAC	#5 CONT.
IVO	CORNUS ALBA 'BAIL HALO'	IVORY HALO DOGWOOD	#5 CONT.
MKL	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC	#5 CONT.
PBS	PRUNUS BESSEYI 'PAWNEE BUTTES'	PAWNEE BUTTES SANDCHERRY	#5 CONT.
URC	ARONIA ARBUTIFOLIA 'ERECTA'	UPRIGHT RED CHOKEBERRY	#5 CONT.
WRP	WEIGELA FLORIDA 'RED PRINCE'	RED PRINCE WEIGELA	#5 CONT.
DECIDUOUS SHRUBS (7' SPREAD)			
DFV	VIBURNUM Plicatum tomentosum 'SUMMER SNOWFLAKE'	DOUBLEFILE VIBURNUM	#5 CONT.
MOC	PHILADELPHUS LEWISII 'CHEYENNE'	CHEYENNE MOCKORANGE	#5 CONT.
NGC	PHYSOCARPUS OPULIFOLIUS 'CENTER GLOW'	CENTER GLOW NINEBARK	#5 CONT.
PLS	PRUNUS X CISTENA	CISTENA PLUM	#5 CONT.
VBM	VIBURNUM DENTATUM 'CHRISTOM'	BLUE MUFFIN VIBURNUM	#5 CONT.
EVERGREEN SHRUBS/UPRIGHT JUNIPERS			
BCH	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER	#5 CONT.
BOX	BUXUS 'GREEN VELVET'	GREEN VELVET BOXWOOD	#5 CONT.
GMJ	JUNIPERUS PROCUMBENS 'GREEN MOUND'	GREEN MOUND JUNIPER	#5 CONT.
MOO	JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER	6' HT. MIN.
MSL	PINUS MUGO 'SLOWMOUND'	SLOWMOUND MUGO PINE	#5 CONT.
SYL	PINUS SYLVESTRIS 'ALBYN PROSTRATA'	SPREADING SCOTS PINE	#5 CONT.
ORNAMENTAL GRASSES			
BAG	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION GRASS	#1 CONT.
BFE	FESTUCA GLAUCA 'ELIJAH BLUE'	BLUE FESCUE	#1 CONT.
FRG	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	#1 CONT.
GHM	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCHGRASS	#1 CONT.
HFG	PENNISETUM ALOPECUROIDES 'HAMELN'	HARDY FOUNTAIN GRASS	#1 CONT.
JFG	HAKENOCHLOA MARCRA 'AUREOLA'	JAPANESE FOREST GRASS	#1 CONT.
PMG	MISCANTHUS SINENSIS 'PURPURASCENS'	PURPLE MAIDEN GRASS	#1 CONT.
RSG	PANICUM VIRGATUM 'SHENANDOAH'	RED SWITCHGRASS	#1 CONT.
PERENNIALS			
AGA	AGASTACHE RUPESTRIS	SUNSET HYSSOP	#1 CONT.
AQU	AQUILEGIA CHRYSANTHA 'DENVER GOLD'	YELLOW COLUMBINE	#1 CONT.
CPM	ECHINACEA PURPUREA 'MAGNUS'	MAGNUS CONEFLOWER	#1 CONT.
GAI	G. ARISTATA	GAILLARDIA/BLANKET FLOWER	#1 CONT.
HOS	HOSTA SIEBOLDIANA 'ELGANS'	BLUE GIANT PLANTAIN HOSTA	#1 CONT.
HYS	AGASTACHE AURANTIACA 'P012S'	CORONADO HYSSOP	#1 CONT.
LAV	LAVANDULA ANGUSTIFOLIA 'MUNSTEAD'	ENGLISH LAVENDER	#1 CONT.
PEN	PENSTEMON BARBATUS 'PRAIRIE DUSK'	ROSE-PURPLE PENSTEMON	#1 CONT.
RGD	R. FULGIDA 'GOLDSTRIM'	RUIDBECKIA/BLACK EYED SUSAN	#1 CONT.
SMN	S. SYLVESTRIS X 'MAINACHT'	MAY NIGHT SALVIA	#1 CONT.
VAL	CENTRANTHUS RUBER 'ALBUS'	WHITE VALERIAN	#1 CONT.
VFA	ARTEMISIA LUDOVICIANA 'VALERIE FINNIS'	VALERIE FINNIS SAGE	#1 CONT.

WETLAND SEED MIX

WET DETENTION POND MIX BY PAWNEE BUTTES SEED, INC, OR APPROVED EQUAL			
COMMON NAME	SCIENTIFIC NAME	% OF TOTAL	PLS PER ACRE
AMERICAN SLOUGHGRASS	BECKMANNIA SYZIGACHNE	12%	2.40
AQUATIC SEDGE	CAREX AQUATILIS	1%	0.20
NEBRASKA SEDGE	CAREX NEBRASCENSIS	3%	0.60
WOOLLY SEDGE	CAREX LANUGINOSA	1%	0.20
CREEPING SPIKERUSH	ELEOCHARIS PALUSTRIS	10%	2.00
CANADA WILDRYE	ELYMUS CANADENSIS	15%	3.00
BALTIC RUSH	JUNCUS BALTICUS	1%	0.20
TORREY'S RUSH	JUNCUS TORREYI	1%	0.20
SWITCHGRASS	PANICUM VIRGATUM	12%	2.40
HARDSTEM BULRUSH	SCIRPUS ACUTUS	10%	2.00
PALE BULRUSH	SCIRPUS PALLIDUS	1%	0.20
ALKALI BULRUSH	SCIRPUS PALUDOSUS	10%	2.00
THREE SQUARE BULRUSH	SCIRPUS PUNGENS	4%	0.80
SOFT STEM BULRUSH	SCIRPUS VALIDUS	10%	2.00
GIANT BUR-REED	SPARGANIUM EURYSCARPUM	4%	0.80
PRAIRIE CORDGRASS	SPARTINA PECTINATA	5%	1.00
TOTAL		100%	20 LBS / ACRE

TURF GRASS BLEND: SOD

90/10 FESCUE/ BLUEGRASS BLEND BY BITTERSWEET TURF FARMS, INC, OR APPROVED EQUAL	
COMMON NAME	% OF TOTAL
EXCALIBER FESCUE	30%
REBEL JR. FESCUE	30%
CREW CUT FESCUE	30%
FREEDOM BLUEGRASS	5%
RAM I BLUEGRASS	5%
TOTAL	100%

DRYLAND SEED MIX

COMMON NAME	SCIENTIFIC NAME	% OF TOTAL	PLS PER ACRE
WESTERN WHEATGRASS	AGROPYRON SMITHII	28%	6.2 LBS.
BIG BLUESTEM	ANDROPOGON GRARDOI	28%	6.2 LBS.
SIDE OATS GRAMA	BOUTELOUA CURTIPENDULA	10%	2.2 LBS.
BLUE GRAMA	BOUTELOUA GRACILIS	6%	1.2 LBS.
SWITCHGRASS	PANICUM VIRGATUM	10%	2.2 LBS.
INDIANGRASS	SORGHASTRUM NUTANS	10%	2.2 LBS.
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUS	8%	1.8 LBS.
TOTAL		100%	22.0 LBS.

LANDSCAPE AREA	AREAS/CALCULATIONS	REQUIRED TREES	PROVIDED TREES	REQUIRED SHRUBS	PROVIDED SHRUBS
STREET ROW: 1 TREE FOR EVERY 40 LINEAR FEET	607 LINEAR FT	15	16	NA	NA
PARKING AREA: 1 TREE FOR EVERY 15 SPOTS. 1 SHRUB PER PARKING SPOT	364 SPOTS	24	30	364	384
INTERIOR AREA: 1 TREE /1000 SQ FT. 1 SHRUB/ 150 SQ FT.	181,836.5 SQ FT	182	185	1213	1657
TOTAL		221	231	1577	2041

186,037 SF
From COVER PAGE

LANDSCAPING SHALL BE PLANTED AND MAINTAINED IN A NEAT, CLEAN AND HEALTHY CONDITION BY THE OWNER. THIS SHALL INCLUDE PROPER PRUNING, MOWING AND AERATION OF LAWNS, REPLACEMENT OF MULCH, WEEDING, REMOVAL OF LITTER AND THE REGULAR WATERING OF ALL PLANTINGS. IRRIGATION SHALL BE MAINTAINED TO MAXIMIZE WATER CONSUMPTION. SHOULD ANY PLANT MATERIAL DIE, THE OWNER, SUCCESSOR, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF PLANT(S) WITHIN ONE PLANTING SEASON. REPLACEMENT OF PLANT MATERIALS SHALL OCCUR AT THE FOLLOWING RATE.

TYPE	PLANT REPLACEMENT WITHIN	
	1 YEAR	2+ YEARS
TREE - DECIDUOUS	INCREASE CALIPER BY 1"	INCREASE CALIPER BY 1.5"
TREE - CONIFEROUS	INCREASE HEIGHT BY 1.5'	INCREASE HEIGHT BY 2'
SHRUB	REPLACE WITH PLANTS OF AT LEAST 1/2 MATURE SIZE	REPLACE WITH PLANTS OF AT LEAST 1/2 MATURE SIZE

NOTE: IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN GRAPHIC AND THE LANDSCAPE LEGEND, THE PLANT MATERIAL QUANTITY AS DETERMINED BY THE PLAN GRAPHIC SHALL TAKE PRECEDENCE.

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOEHLER SMITH

Filing: P REVISION: NINE MILE SUBDIVISION FILING NO.1 BLOCK 2, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO. PROJECT NUMBER: 150602

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES
SITE PLAN - SP-000832-2016

1101 Bannock Street
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*WALLS IN CONTACT
W/ DRY UTILITY/
EASEMENTS?*

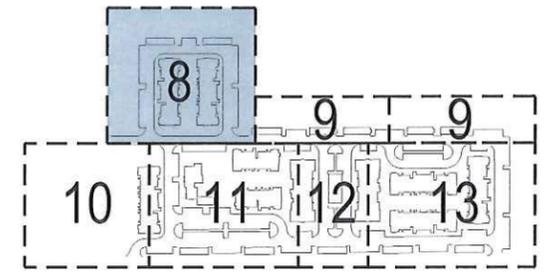
*WALL/BERM/L.S.
3-4' INK MT.*

*SCREENING/L.S.,
TYP. OF ALL
EQPT.*

*WALL MOUNT
* METER LOCATIONS
* SKIRT TRIANGLES.*

AWL 7'

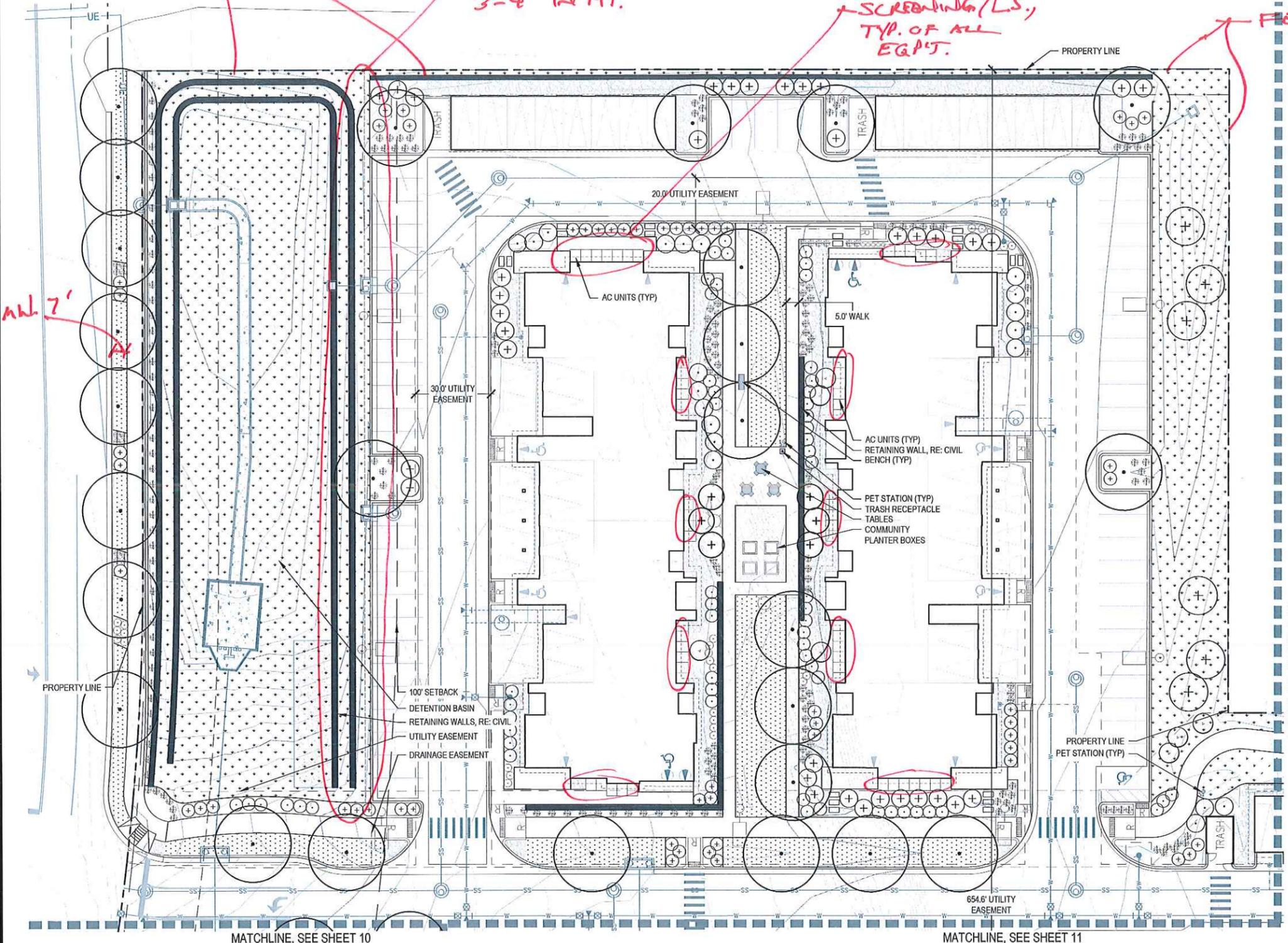
KEY MAP



** PLANT CALLOUTS.*

LEGEND

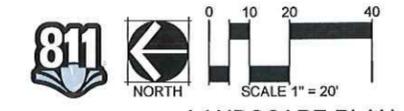
- | | | | |
|--|--------------------|--|--------------------|
| | CANOPY TREE | | SOD |
| | EVERGREEN TREE | | BED |
| | ORNAMENTAL TREE | | NATIVE SEED |
| | DECIDUOUS SHRUB | | 4-6" RIVER COBBLE |
| | EVERGREEN SHRUB | | CRUSHER FINES |
| | ORNAMENTAL GRASSES | | BENCH |
| | PERENNIALS | | BIKE RACK |
| | STEEL EDGER | | PET WASTE STATION |
| | SPADE-CUT EDGE | | LANDSCAPE BOULDERS |
| | FENCE | | STEPPERS |
| | MATCHLINE | | |



MATCHLINE, SEE SHEET 9

MATCHLINE, SEE SHEET 10

MATCHLINE, SEE SHEET 11



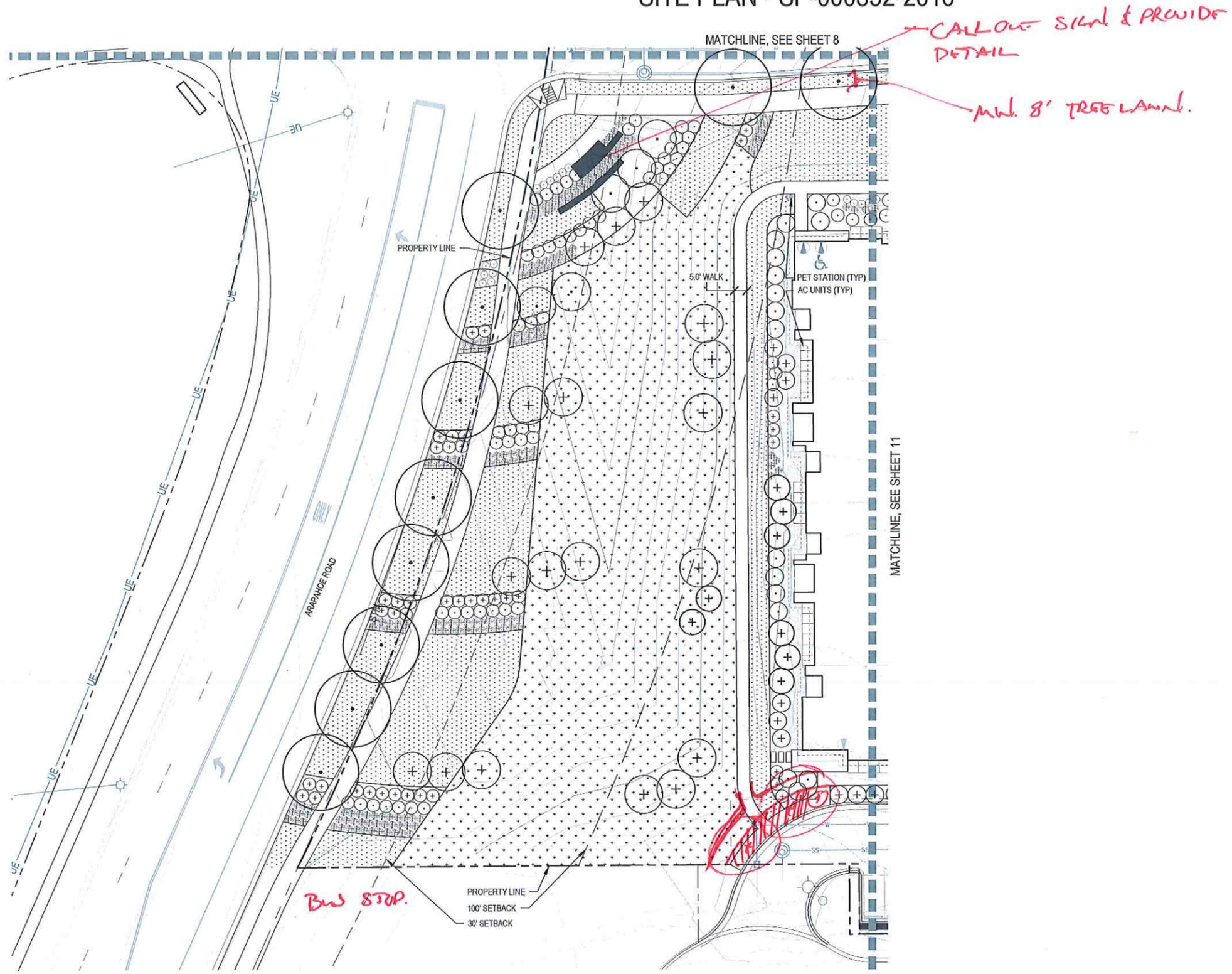
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF NORRIS DESIGN. PROJECT NUMBER: 190502

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

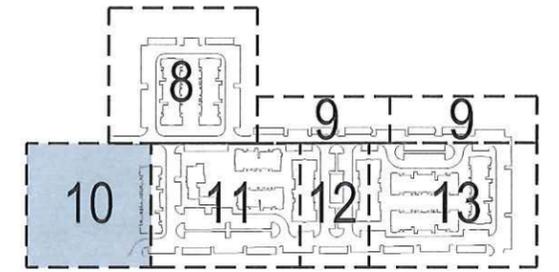
A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES
SITE PLAN - SP-000832-2016

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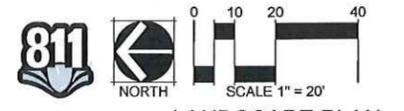


KEY MAP



LEGEND

	CANOPY TREE		SOD
	EVERGREEN TREE		BED
	ORNAMENTAL TREE		NATIVE SEED
	DECIDUOUS SHRUB		4"-6" RIVER COBBLE
	EVERGREEN SHRUB		CRUSHER FINES
	ORNAMENTAL GRASSES		BENCH
	PERENNIALS		BIKE RACK
	STEEL EDGER		PET WASTE STATION
	SPADE-CUT EDGE		LANDSCAPE BOULDERS
	FENCE		STEPPERS
	MATCHLINE		



NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

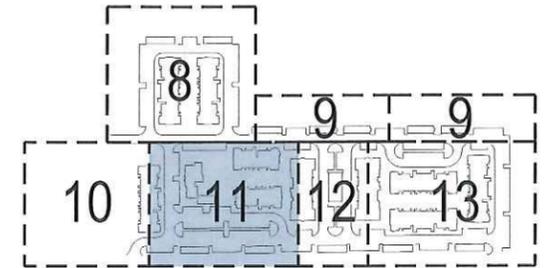
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15 ACRES
SITE PLAN - SP-000832-2016

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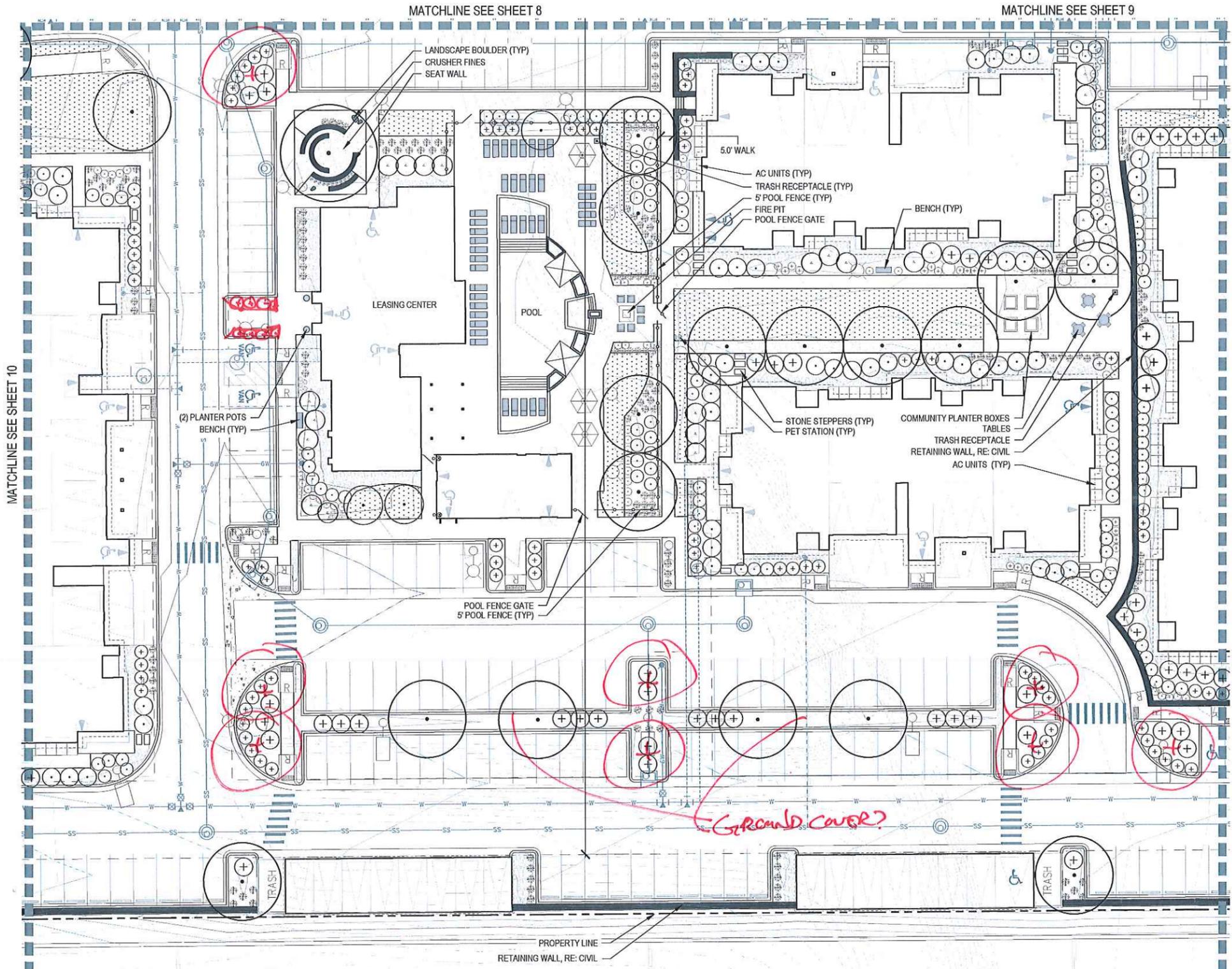
NORRIS DESIGN
Planning | Landscape Architecture | Project Management

KEY MAP



LEGEND

	CANOPY TREE		SOD
	EVERGREEN TREE		BED
	ORNAMENTAL TREE		NATIVE SEED
	DECIDUOUS SHRUB		4"-6" RIVER COBBLE
	EVERGREEN SHRUB		CRUSHER FINES
	ORNAMENTAL GRASSES		BENCH
	PERENNIALS		BIKE RACK
	STEEL EDGER		PET WASTE STATION
	SPADE-CUT EDGE		LANDSCAPE BOULDERS
	FENCE		STEPPERS
	MATCHLINE		



NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS ROCKETS SMITH

Final: P:\REVISED\NINE MILE\DRAWINGS\SUBMITTALS\SITE PLAN\LANDSCAPE\LANDSCAPE PLAN\LANDSCAPE PLAN.dwg, 11:15 AM, 04/27/2017, 15:00:00, By: Lorne Walker

PROJECT NUMBER: 150502

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

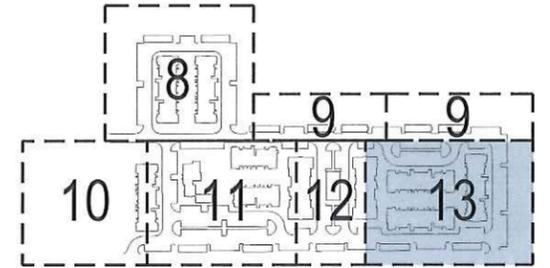
15 ACRES

SITE PLAN - SP-000832-2016

1101 Bannock Street
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F 303.692.1166
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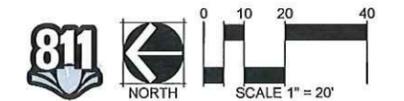
NORRIS DESIGN
Planning | Landscape Architecture | Project Production

KEY MAP



LEGEND

	CANOPY TREE		SOD
	EVERGREEN TREE		BED
	ORNAMENTAL TREE		NATIVE SEED
	DECIDUOUS SHRUB		4'-6" RIVER COBBLE
	EVERGREEN SHRUB		CRUSHER FINES
	ORNAMENTAL GRASSES		BENCH
	PERENNIALS		BIKE RACK
	STEEL EDGER		PET WASTE STATION
	SPADE-CUT EDGE		LANDSCAPE BOULDERS
	FENCE		STEPPERS
	MATCHLINE		



LANDSCAPE PLAN

REVISION DATE: 05-22-2017 ISSUE DATE: 04-27-2017

SHEET 13 OF 36

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

MATCHLINE, SEE SHEET 9

MATCHLINE, SEE SHEET 12

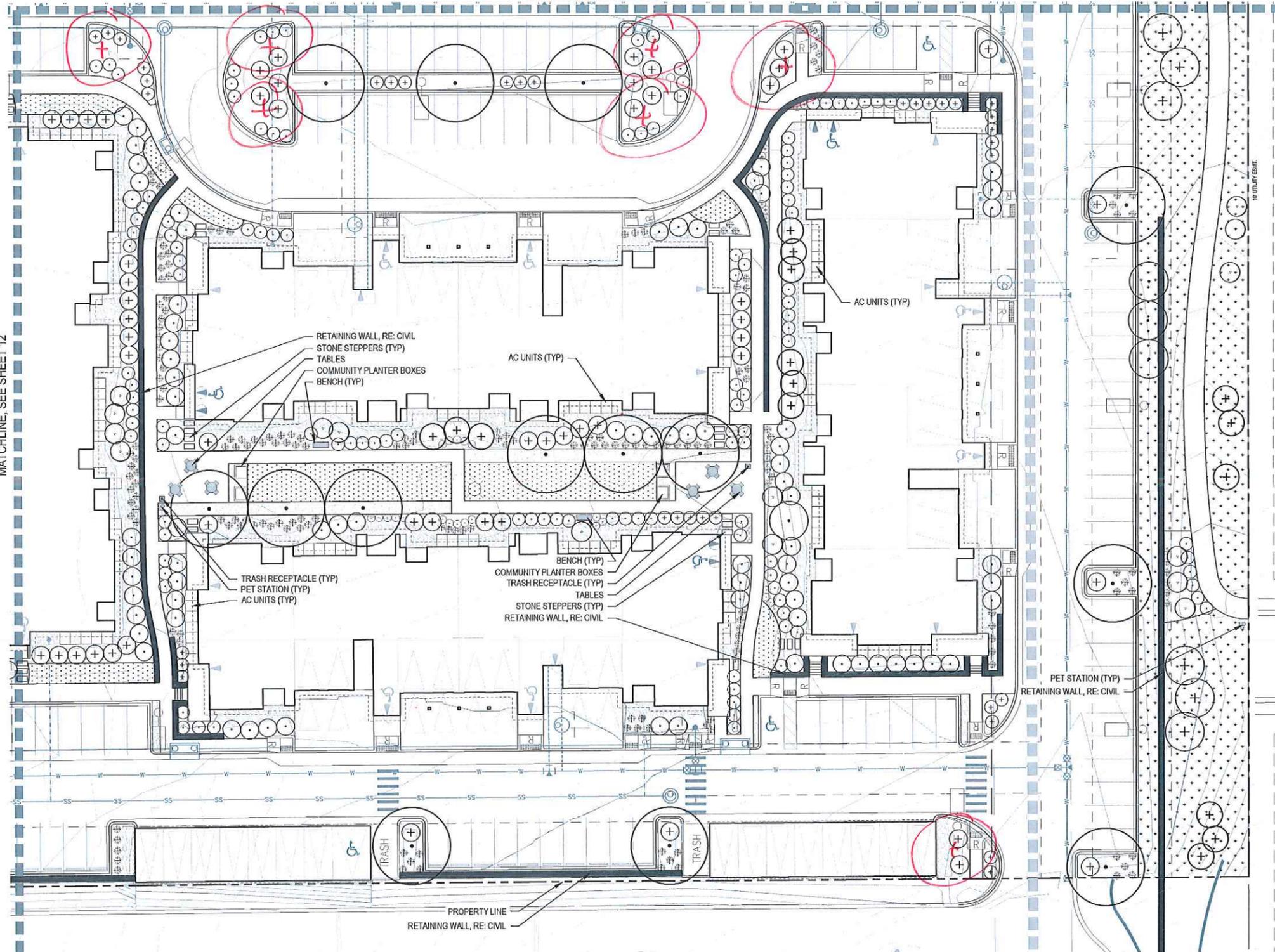


Figure P: REVISION NINE MILE SUBDIVISION FILING NO.1 BLOCK 2 PLAN AND REFERRAL SUBMITTALS LAYOUT PLAN L13 PLAN
Project: NINE MILE SUBDIVISION FILING NO.1 BLOCK 2 (SP-000832-2016) Rev. 04/27/2017

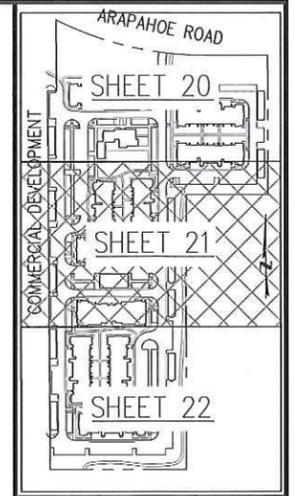
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NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

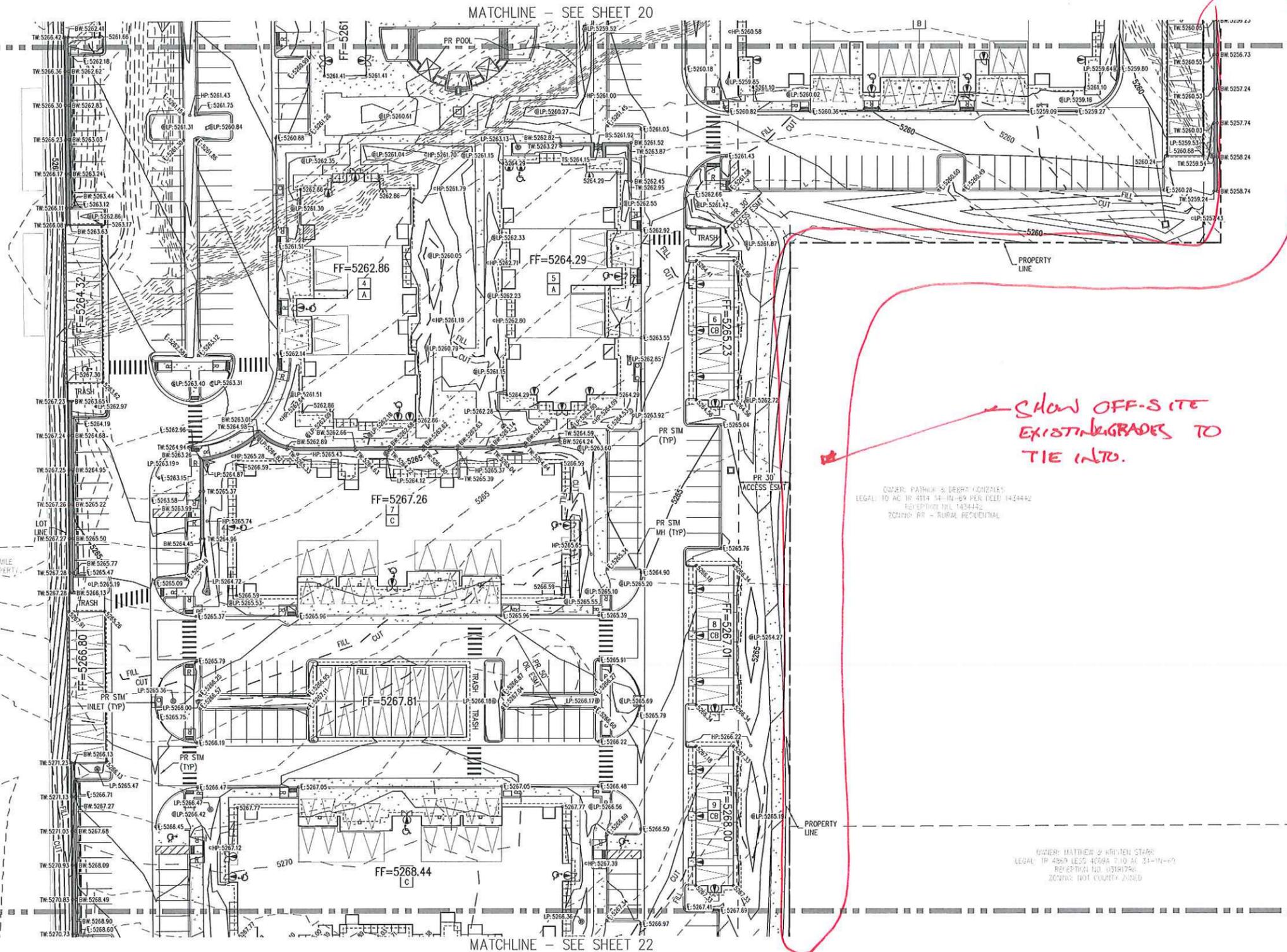
A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES

SITE PLAN - SP-000832-2016



KEY MAP
SCALE: 1" = 250'



SHOW OFF-SITE
EXISTING GRADES TO
TIE INTO.

OWNER: PATRICK & DEBRA KONZALEK
LEGAL: 10 AC IN 4114 34-IN-69 PER DECED 1434442
RECEIVED TO: 1434442
ZONING: RR - RURAL RESIDENTIAL

OWNER: MATTHEW & KRISTEN STARR
LEGAL: 1P 4569 LEGS 4008A 7.10 AC 34-1N-69
RECEIVED TO: 103181796
ZONING: HOV COUNTY ANNEX

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HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



OUTLOOK NINE MILE

PORTION OF _ WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO

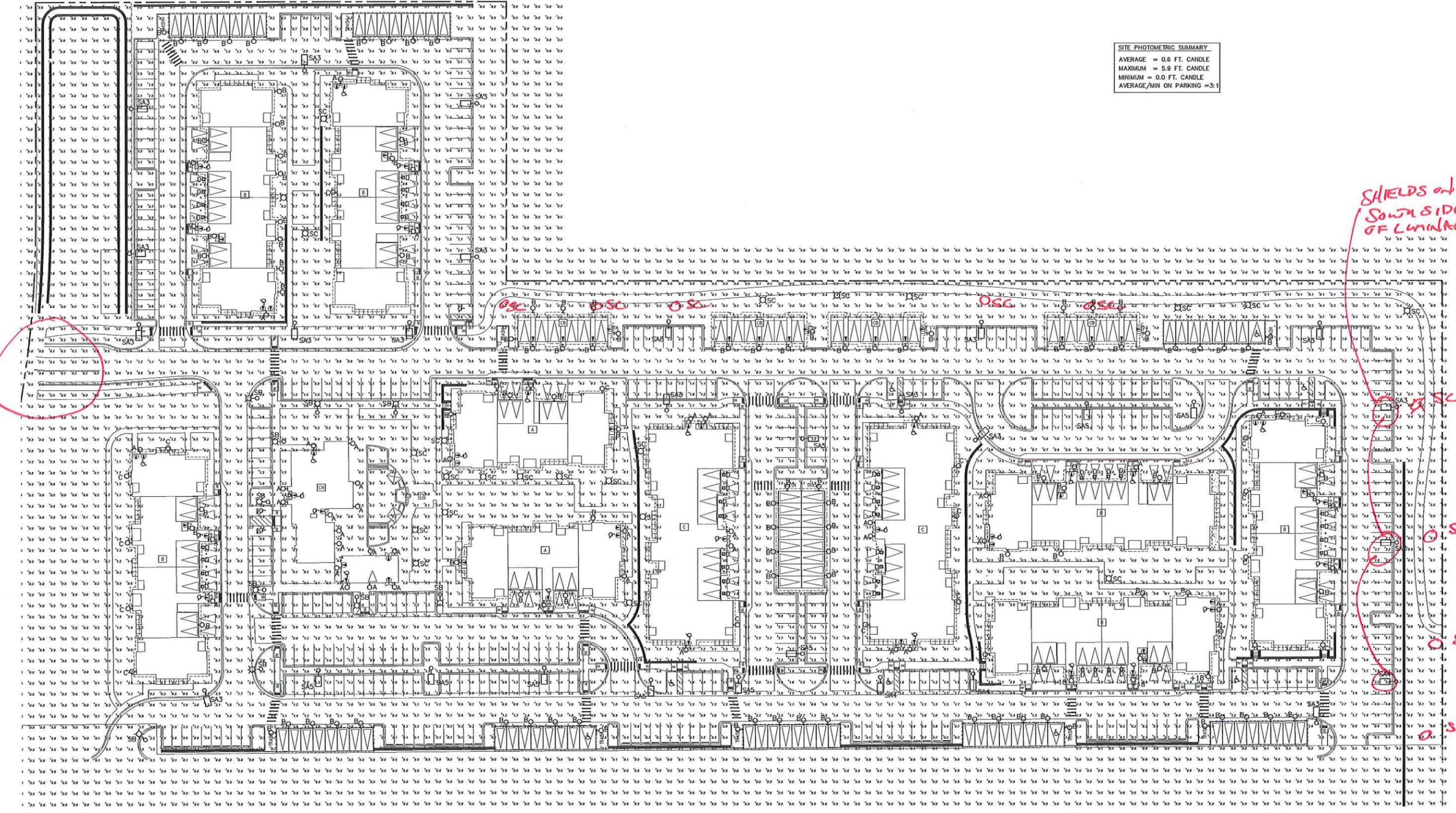
14 ACRES

SITE PLAN - SP _ - _

SITE PHOTOMETRIC SUMMARY	
AVERAGE	= 0.6 FT. CANDLE
MAXIMUM	= 5.9 FT. CANDLE
MINIMUM	= 0.0 FT. CANDLE
AVERAGE/MIN ON PARKING	= 3:1

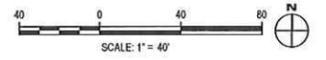
LIGHTING?

SHIELDS on
SOUTH SIDE
OF LUMINA



HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
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ENGINEERING CONSULTANTS
REGISTERED ELECTRICAL ENGINEERS
3555 WALWORTH ST. SUITE B, BOULDER, CO 80502
303.440.8534 www.ec-engineers.com



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PROJECT NUMBER: 160602

OUTLOOK NINE MILE

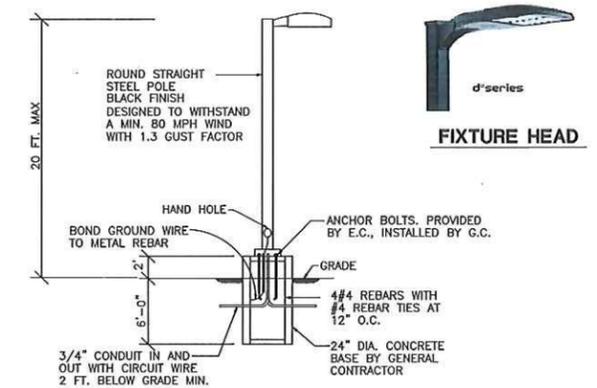
PORTION OF _ WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO

14 ACRES

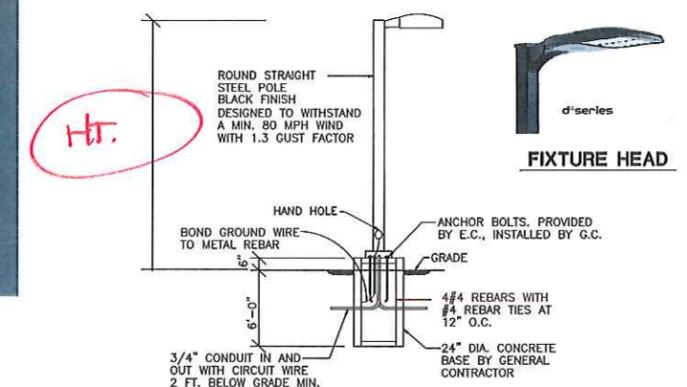
SITE PLAN - SP ___

LIGHTING FIXTURE SCHEDULE

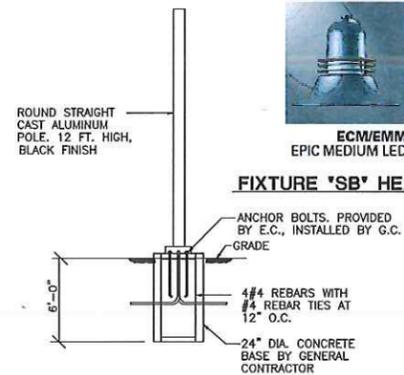
ITEM	MANUFACTURER	CAT. NO.	LAMPS	DESCRIPTION
SA3	LITHONIA	DSX1-40C-530-40K T3M-MVOLT-SPA-HSS -DBLBXD	52 WATT 4000K LED 6,485 LUMENS	SINGLE HEAD FULL CUT OFF POLE LIGHT ON SQUARE POLE, MOUNTED AT 20 FT ABOVE GRADE, TYPE III OPTICS, HOUSE SIDE SHIELD
SA4	LITHONIA	DSX1-40C-530-40K T4M-MVOLT-SPA-HSS -DBLBXD	52 WATT 4000K LED 6,485 LUMENS	SINGLE HEAD FULL CUT OFF POLE LIGHT ON SQUARE POLE, MOUNTED AT 20 FT ABOVE GRADE, TYPE IV OPTICS, HOUSE SIDE SHIELD
SA5	LITHONIA	DSX1-40C-530-40K T5M-MVOLT-SPA- -DBLBXD	52 WATT 4000K LED 6,900 LUMENS	SINGLE HEAD FULL CUT OFF POLE LIGHT ON SQUARE POLE, MOUNTED AT 20 FT ABOVE GRADE, TYPE V OPTICS
SB	INVUE LIGHTING	EMM-ED2LED-E1-T3- SR-SW-DP-DIM-MS/ X-LXX ARM: VA6110-XX	52W, 4000K LED 5,873 LUMENS	SINGLE HEAD LED DIMMABLE PEDESTRIAN LIGHT ON 12 FT ROUND POLE. TYPE III OPTICS STEP DIMMED WITH TIMER
SC	ARCHITECTURAL AREA LIGHTING	UCB-VSL-STR-12LED NW-AGN-SLC X-LXX	33W, 4000K LED 700 LUMENS	42" ROUND BOLLARD LIGHT WITH HOOD. FULL CUT OFF
A	KICHLER LIGHTING	9044NI	(1) 20W SP CFL 1200 LUMENS	EXTERIOR WALL LIGHT AT RESIDENTIAL ENTRANCES, AT 8' ABOVE GRADE FULLY SHIELDED LAMP. LIGHT FINISH TO DETERMINED BY ARCHITECT OR OWNER
B	LUMARK	XTOR1A-LED-N-HA	3500K LED 719 LUMENS	EXTERIOR WET LOCATION RATED WALL LIGHT ON GARAGE WALLS, AT +7.5' ABOVE GRADE. FULLY SHIELDED, FULL CUTOFF - GARAGES AND BALCONIES
C	LSI LIGHTING	XCHW13-LED-FT- 28-350-NW-UE- BRZ-PCL	4000K LED 2787 LUMENS	FULL CUTOFF EXTERIOR WALL LIGHT, TYPE FORWARD THROW OPTICS, AT +12' ABOVE GRADE
D	HALO	SLD606840WH	12W, 4000K LED 800 LUMENS	6" DIA. SLIM SURFACE WET LOCATION LED DOWN LIGHT, FLAT LENS



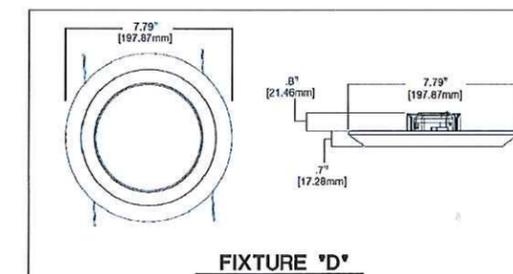
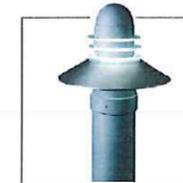
FIXTURES TYPE SA5 INSTALLATION DETAIL ON PARKING SURFACE
NO SCALE



POLE MOUNTED FIXTURES INSTALLATION DETAIL
"SA3", "SA4" AND "SA5" INSTALLED IN
LANDSCAPED AREAS
NO SCALE



FIXTURES TYPE "SB" INSTALLATION DETAIL
NO SCALE



FIXTURE 'D'

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FILES: P:\SUBS\OUTLOOK NINE MILE\SITE PHOTOMETRIC\SDP - TITL\BOLDCONS Lpoc.MXD
DATE: MON 04/27/2017 10:40:07 AM
PROJECT NUMBER: 160502

HKS HARRIS KOCHER SMITH
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REGISTERED ELECTRICAL ENGINEERS
2855 WALNUT ST SUITE B, DENVER, CO 80205
(303) 333-5333 FAX: (303) 333-5334



The Town of Erie
645 Holbrook St.
P.O. Box 750
Erie, CO 80516
(303) 926-2773
FAX (303) 926-2706

Memo

To: Ryan McBreen
From: Todd Bjerkaas
Date: August 10, 2017
Re: SP-000832-2016 Nine Mile Site Plan – Architecture Comments
cc: Jared Carlon, Maggie Lyons

Dear Ryan,

Please see below for my comments on the architectural sheets of the site Plan. Code references are for the Nine Mile Planned Development (NMPD).

Site Plan Architecture

1. General Comments
 - a. Provide typical floor plans for each building type. Where floors differ provide floor plan for each typical floorplate. Include overall exterior dimensions and dimensions of wall planes that step back/protrude.
 - b. Provide overall and intermediate dimensions on all building elevations.
 - c. In addition to the overall/average building heights, show building heights at the ends of stepped buildings and roof height changes.
 - d. Label roof pitches (between 3:12 and 12:12; NMPD V.B.1.b.i.D).
 - e. Dimension roof overhangs (min. 12"; NMPD V.B.1.b.i.E).
 - f. Provide partial elevations for interior corners not visible from the four standard elevations.
 - g. Provide callouts on all elevations for meter and HVAC locations. These are only labeled on some elevations.
 - h. Enclose exterior stairways.
 - i. At attached garages, stone material is shown above the garages, garages are flanked by lap siding, and columns are wrapped with lap siding. "Buildings are to incorporate visually heavier and more massive elements at the building base, and lighter elements above the base. Upper stories shall not appear heavier or demonstrate greater mass than the lower stories of the building" (NMPD V.B.1.c.i.A.4). Replace lap siding with stone in these areas.
 - j. The apartment building type elevations appear to incorporate a few different architectural styles, several material and color changes across the façade, areas of symmetry flanked by asymmetry, etc. Staff would like to discuss the overall style and appearance of Nine Mile (including the commercial portions) to understand how this architecture is cohesive

with the vision of the development as a whole.

- k. Add details consistent with the architectural style of each building type (i.e. roof brackets, corbels, window grids, etc. as applicable).
- l. Two color schemes are called out of which the only difference is Color #1. The color elevations show only one color scheme for each building type (A, B, C, Carriage). Does the applicant intend to use both color schemes on each building type?
- m. Provide a summary of how each of the building types are distinct and meet at least two of the five distinguishing requirements (NMPD V.B.1.c.i.A.6)
- n. All balconies are inset into the building. Consider extending some of the balconies to cantilever a couple extra feet for added articulation/shadowing/detail. See picture below for an example.



- o. See redlines for technical adjustments and comments.

- 2. Sheet 25 - Building A
 - a. Review articulation requirements on the right and left elevations following enclosure of the stairways.
- 3. Sheet 27 - Building B
 - a. Review articulation requirements on the right and left elevations following enclosure of the stairways.
- 4. Sheet 29 - Building C
 - a. The max building height for 4-story buildings is 49' (NMPD Dimensional Standards Table). The building height is shown as 49'-10".
 - b. Provide for/lower the overhead awnings at the three main entrances.
 - c. The left and right elevations do not meet the articulation requirements of the PD. Elevations are dominated by lap siding and smaller windows. Incorporate changes in material, wall planes, roof changes, window types, extend overhangs, etc. to achieve visual interest to the same level and quality as the front and rear elevations.
 - d. Show wall plane changes on the left half of the front elevation. Project the main entrance out and set back the first unit to the left similar to the right half of the elevation.
- 5. Sheet 31 - Clubhouse
 - a. Provide the four standard elevations for each building separately.

6. Sheet 33 – Carriage
 - a. While the unit entrances may be oriented to the parking areas, reference the Site Plan comments for staff's concerns about access and orientation. Please discuss with staff the ability to move the end units to the edges and even orient them to the sides, and the feasibility of orienting the center unit's door to the trail corridor or corners.
 - b. Label the louvered openings on the front elevations.
 - c. Provide articulation on the first floor of the rear elevation. Note that this elevation faces a trail/open space corridor.
 - d. The character/style of the carriage units is different than the apartment units. The carriage units incorporate more of a horizontal design with a belly band, trim, and material changes vertically, whereas the apartments emphasize more the vertical with material changes occurring as you move horizontally across the building face.
 - e. The elevation reads as 3 identical and repeated units. Modify elevation s to avoid monotony and repetition to provide variety and visual interest.

7. Sheet 35 – Garages and Trash Enclosures
 - a. Move the keynotes below the title block for clarity.
 - b. For garage Types A and B, add roof and wall articulation similar to Type C. On the rear elevations, add articulation (roof change, material change, spandrel glass, etc.).
 - c. On Type C's left and right elevations, add articulation.
 - d. Enlarge trash enclosure elevations and dimension. Trash enclosures are to match the material and design of the principal structures and be a maximum height of 6'.
 - e. Provide a detail of the trash enclosure gates to show they are opaque to a height of 6'.

Since review is a cumulative process and dependent on various criteria, we reserve the right to provide further comment(s) and request additional information upon receipt of this requested information. Please do not hesitate to contact me at 303.926.2773 for further clarification or with any questions or concerns that you may have.

Sincerely,

Todd Bjerkaas
Senior Planner



The Town of Erie
645 Holbrook St.
P.O. Box 750
Erie, CO 80516
(303) 926-2773
FAX (303) 926-2706

Memo

To: Ryan McBreen
From: Todd Bjerkaas
Date: August 10, 2017
Re: SP-000832-2016 Nine Mile Site Plan – Architecture Comments
cc: Jared Carlon, Maggie Lyons

Dear Ryan,

Please see below for my comments on the architectural sheets of the site Plan. Code references are for the Nine Mile Planned Development (NMPD).

Site Plan Architecture

1. General Comments

- a. Provide typical floor plans for each building type. Where floors differ provide floor plan for each typical floorplate. Include overall exterior dimensions and dimensions of wall planes that step back/protrude.
- b. Provide overall and intermediate dimensions on all building elevations.
- c. In addition to the overall/average building heights, show building heights at the ends of stepped buildings and roof height changes.
- d. Label roof pitches (between 3:12 and 12:12; NMPD V.B.1.b.i.D).
- e. Dimension roof overhangs (min. 12"; NMPD V.B.1.b.i.E).
- f. Provide partial elevations for interior corners not visible from the four standard elevations.
- g. Provide callouts on all elevations for meter and HVAC locations. These are only labeled on some elevations.
- h. Enclose exterior stairways.
- i. At attached garages, stone material is shown above the garages, garages are flanked by lap siding, and columns are wrapped with lap siding. "Buildings are to incorporate visually heavier and more massive elements at the building base, and lighter elements above the base. Upper stories shall not appear heavier or demonstrate greater mass than the lower stories of the building" (NMPD V.B.1.c.i.A.4). Replace lap siding with stone in these areas.
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 - a. While the unit entrances may be oriented to the parking areas, reference the Site Plan

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- e. Provide a detail of the trash enclosure gates to show they are opaque to a height of 6'.

Since review is a cumulative process and dependent on various criteria, we reserve the right to provide further comment(s) and request additional information upon receipt of this requested information. Please do not hesitate to contact me at 303.926.2773 for further clarification or with any questions or concerns that you may have.

Sincerely,



Todd Bjerkaas
Senior Planner

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES

SITE PLAN - SP-000832-2016

KEYNOTES	
#	DESCRIPTION
01	ARCHITECTURAL COMPOSITE SHINGLE ROOF
02	5/4" X 8" PAINTED FASCIA
03	6" CEMENTITIOUS LAP SIDING
04	5/4" X 8" PAINTED CEMENTITIOUS ACCENT TRIM
05	CEMENTITIOUS PANEL SIDING
06	VINYL WINDOW
07	METAL REVEAL
08	STONE VENEER
09	OVERHEAD GARAGE DOOR
10	42" HIGH GUARD RAIL
11	FULL-LITE UNIT BALCONY DOOR
12	BUILDING ENTRY DOOR, MAINTAIN ACCESSIBLE ROUTE TO THIS LOCATION
14	BUILDING NUMBER SIGNAGE LOCATION
17	STONE SILL
18	LOW PROFILE METAL CORNER TRIM
22	STOREFRONT
28	ELECTRIC METER STACK
29	GAS METER
30	RIP
31	A/C CONDENSOR
33	RISER ROOM DOOR

BUILDING COLOR SCHEME #1
 COLOR #1: BENJAMIN MOORE 1616 STORMY SKY
 COLOR #2: BENJAMIN MOORE 1533 EMBASSY GREEN
 COLOR #3: WOODTONE RUSTIC SERIES "MOUNTAIN CEDAR"
 TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
 WINDOWS: ATRIUM WINDOWS; VINYL; ALMOND
 METAL RAILING: DARK BRONZE

BUILDING COLOR SCHEME #2
 COLOR #1: BENJAMIN MOORE 1532 MAJESTIC SAGE
 COLOR #2: BENJAMIN MOORE 1533 EMBASSY GREEN
 COLOR #3: WOODTONE RUSTIC SERIES "MOUNTAIN CEDAR"
 TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
 WINDOWS: ATRIUM WINDOWS; VINYL; ALMOND
 METAL RAILING: DARK BRONZE

ASPHALT ROOF: TAMKO HERITAGE 'RUSTIC BROWN'



4 BLDG A - REAR ELEVATION
1/16" = 1'-0"



2 BLDG A - RIGHT ELEVATION
1/16" = 1'-0"



3 BLDG A - LEFT ELEVATION
1/16" = 1'-0"



1 BLDG A - FRONT ELEVATION
1/16" = 1'-0"

Label of elevations

Label, TYP.

Either color conventions can't be out this building?

ROOF PITCH

12" min. overhangs

Label, TYP.

** TYPICAL FLOORPLANS
* PARTIAL ELEVATIONS
* DETAILS*

ENCLOSE STAIRWELLS

THE BUILDING ELEVATIONS SHOWN AND APPROVED HEREON ARE INTENDED TO DEMONSTRATE HOW ALL HVAC AND OHER MECHANICAL EQUIPMENT SHALL BE SCREENED ACCORDING TO THE TOWN OF ERIE, UNIFIED DEVELOPMENT CODE REQUIREMENTS. IT IS THE APPLICANTS RESPONSIBILITY TO ENSURE THAT THIS APPROVED SCREENING OCCURS IN THE FIELD AS DEMONSTRATED BY THESE PLANS, REGARDLESS OF CURB REQUIREMENTS, MECHANICAL PLAN CHANGES, OR OTHER CIRCUMSTANCES. FAILURE TO PROVIDE APPROVED SCREENING MAY RESULT IN DELAY OF FINAL INSPECTIONS AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

HKS HARRIS KOCHER SMITH
 1120 Lincoln Street, Suite 1000
 Denver, Colorado 80203
 P: 303.623.6300 F: 303.623.6311
 HarrisKocherSmith.com

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

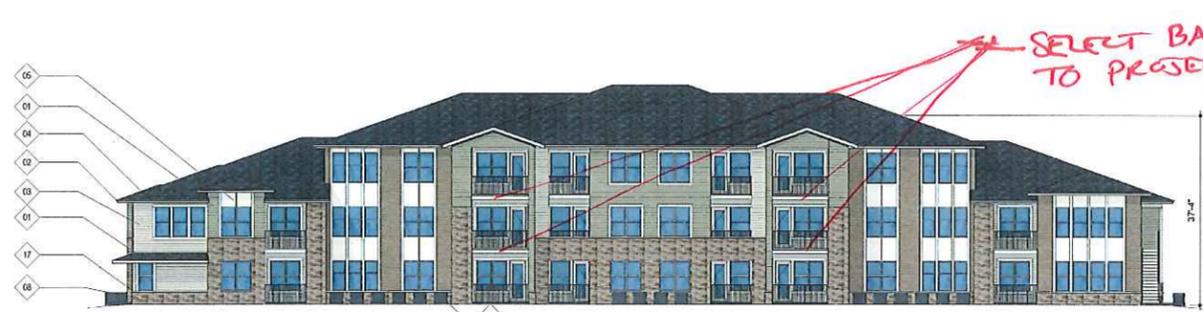
A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES

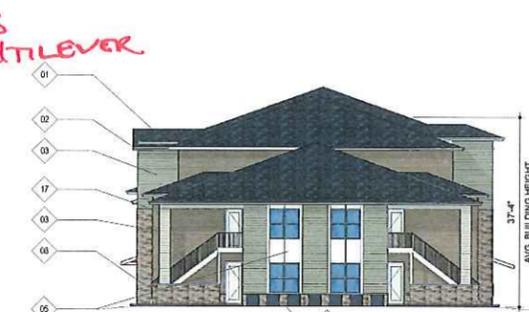
SITE PLAN - SP-000832-2016

KEYNOTES	
#	DESCRIPTION
01	ARCHITECTURAL COMPOSITE SHINGLE ROOF
02	5/4" X 8" PAINTED FASCIA
03	6" CEMENTITIOUS LAP SIDING
04	5/4" X 6" PAINTED CEMENTITIOUS ACCENT TRIM
05	CEMENTITIOUS PANEL SIDING
06	VINYL WINDOW
07	METAL REVEAL
08	STONE VENEER
09	OVERHEAD GARAGE DOOR
10	42" HIGH GUARD RAIL
11	FULL-LITE UNIT BALCONY DOOR
12	BUILDING ENTRY DOOR, MAINTAIN ACCESSIBLE ROUTE TO THIS LOCATION
14	BUILDING NUMBER SIGNAGE LOCATION
17	STONE SILL
18	LOW-PROFILE METAL CORNER TRIM
22	STOREFRONT
28	ELECTRIC METER STACK
29	GAS METER
30	VDP
31	A/C CONDENSOR
33	RISER ROOM DOOR

- BUILDING COLOR SCHEME #1**
- COLOR #1: BENJAMIN MOORE 1516 STORMY SKY
 - COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
 - COLOR #3: WOODSTONE RUSTIC SERIES "MOUNTAIN CEDAR"
 - TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
 - WINDOWS: ATRUM WINDOWS, VINYL, ALMOND
 - METAL RAILING: DARK BRONZE
- BUILDING COLOR SCHEME #2**
- COLOR #1: BENJAMIN MOORE 1532 MAJESTIC SAGE
 - COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
 - COLOR #3: WOODSTONE RUSTIC SERIES "MOUNTAIN CEDAR"
 - TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
 - WINDOWS: ATRUM WINDOWS, VINYL, ALMOND
 - METAL RAILING: DARK BRONZE
- ASPHALT ROOF: TAMKO HERITAGE "RUSTIC BROWN"



4 BLDG B - REAR ELEVATION
1/16" = 1'-0"



2 BLDG B - LEFT ELEVATION
1/16" = 1'-0"



3 BLDG B - RIGHT ELEVATION
1/16" = 1'-0"



1 BLDG B - FRONT ELEVATION
1/16" = 1'-0"

THE BUILDING ELEVATIONS SHOWN AND APPROVED HEREON ARE INTENDED TO DEMONSTRATE HOW ALL HVAC AND OHER MECHANICAL EQUIPMENT SHALL BE SCREENED ACCORDING TO THE TOWN OF ERIE, UNIFIED DEVELOPMENT CODE REQUIREMENTS. IT IS THE APPLICANTS RESPONSIBILITY TO ENSURE THAT THIS APPROVED SCREENING OCCURS IN THE FIELD AS DEMONSTRATED BY THESE PLANS, REGARDLESS OF CURB REQUIREMENTS, MECHANICAL PLAN CHANGES, OR OTHER CIRCUMSTANCES. FAILURE TO PROVIDE APPROVED SCREENING MAY RESULT IN DELAY OF FINAL INSPECTIONS AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.



NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES

SITE PLAN - SP-000832-2016

KEYNOTES	
#	DESCRIPTION
01	ARCHITECTURAL COMPOSITE SHINGLE ROOF
02	5/4" X 8" PAINTED FASCIA
03	6" CEMENTITIOUS LAP SIDING
04	5/4" X 8" PAINTED CEMENTITIOUS ACCENT TRIM
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07	METAL REVEAL
08	STONE VENEER
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11	FULL-LITE UNIT BALCONY DOOR
12	BUILDING ENTRY DOOR, MAINTAIN ACCESSIBLE ROUTE TO THIS LOCATION
14	BUILDING NUMBER SIGNAGE LOCATION
17	STONE SILL
18	LOW-PROFILE METAL CORNER TRIM
22	STOREFRONT
28	ELECTRIC METER STACK
29	GAS METER
30	MDF
31	A/C CONDENSOR
33	RISER ROOM DOOR

BUILDING COLOR SCHEME #1

COLOR #1: BENJAMIN MOORE 1816 STORMY SKY
 COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
 COLOR #3: WOODSTONE RUSTIC SERIES "MOUNTAIN CEDAR"
 TRIM PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
 WINDOWS: ATRIUM WINDOWS, VINYL, ALMOND
 METAL RAILING: DARK BRONZE

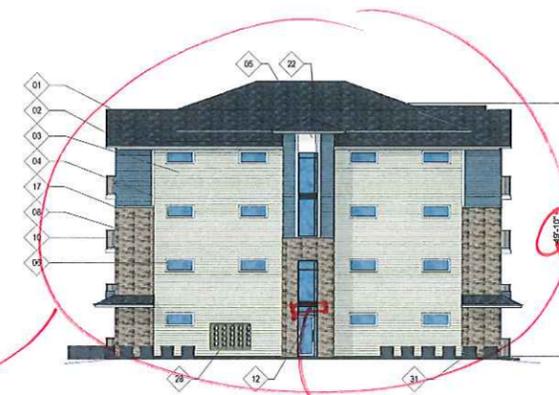
BUILDING COLOR SCHEME #2

COLOR #1: BENJAMIN MOORE 1532 MAJESTIC SAGE
 COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
 COLOR #3: WOODSTONE RUSTIC SERIES "MOUNTAIN CEDAR"
 TRIM PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
 WINDOWS: ATRIUM WINDOWS, VINYL, ALMOND
 METAL RAILING: DARK BRONZE

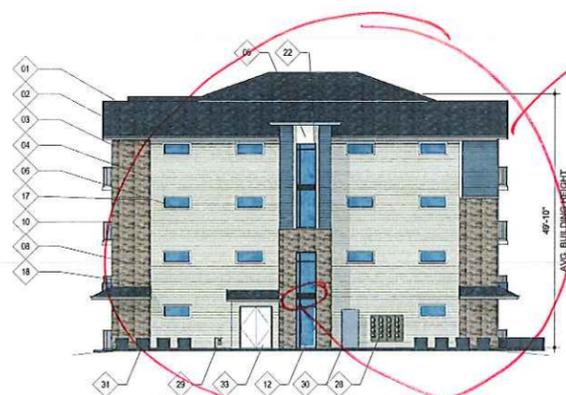
ASPHALT ROOF: TAMKO HERITAGE "RUSTIC BROWN"



4 BLDG C - REAR ELEVATION
1/16" = 1'-0"



2 BLDG C - LEFT ELEVATION
1/16" = 1'-0"



3 BLDG C - RIGHT ELEVATION
1/16" = 1'-0"



1 BLDG C - FRONT ELEVATION
1/16" = 1'-0"

ARTICULATED REQUIREMENTS

WALL PLANE CHANGE

49' MAX

OVERHEAD AIRLAKS

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15 ACRES

SITE PLAN - SP-000832-2016

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04	5/4" X 6" PAINTED CEMENTITIOUS ACCENT TRIM
05	CEMENTITIOUS PANEL SIDING
06	VINYL WINDOW
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09	OVERHEAD GARAGE DOOR
17	STONE SILL
22	STOREFRONT

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TRIM PANEL:	BENJAMIN MOORE HC-81 MANCHESTER TAN
WINDOWS:	ATRILUM WINDOWS; VINYL; ALMOND
METAL RAILING:	DARK BRONZE

BUILDING COLOR SCHEME #2	
COLOR #1:	BENJAMIN MOORE 1532 MAJESTIC SAGE
COLOR #2:	BENJAMIN MOORE 1523 EMBASSY GREEN
COLOR #3:	WOODTONE RUSTIC SERIES 'MOUNTAIN CEDAR'
TRIM PANEL:	BENJAMIN MOORE HC-81 MANCHESTER TAN
WINDOWS:	ATRILUM WINDOWS; VINYL; ALMOND
METAL RAILING:	DARK BRONZE

ASPHALT ROOF: TAMKO HERITAGE 'RUSTIC BROWN'

SEPARATE ELEVATIONS FOR EACH BUILDING

ADD BRACKETS & TRELLIS DETAILS AT SELECT LOCATIONS



4 CLUBHOUSE - LEFT ELEVATION
1/8" = 1'-0"



2 CLUBHOUSE - REAR ELEVATION
1/8" = 1'-0"



3 CLUBHOUSE - RIGHT ELEVATION
1/8" = 1'-0"



1 CLUBHOUSE - FRONT ELEVATION
1/8" = 1'-0"

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Denver, Colorado 80203
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HarrisKocherSmith.com

PROJECT NUMBER: 160602

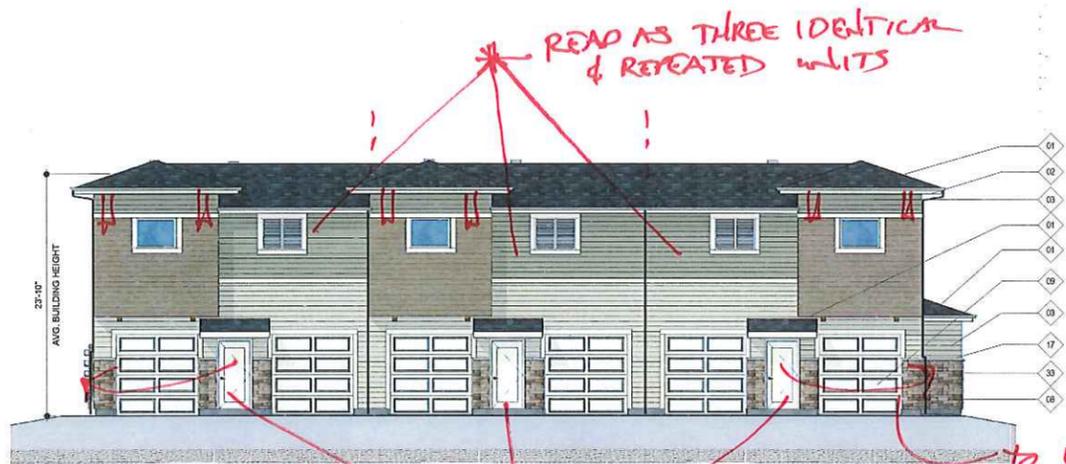
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15 ACRES
SITE PLAN - SP-000832-2016

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04	CEMENTITIOUS PANEL SIDING
05	STONE VENEER
06	OVERHEAD GARAGE DOOR
07	42" HIGH GUARD RAIL
08	STONE SILL
09	RISER ROOM DOOR



4 CARRIAGE FRONT ELEVATION
1/8" = 1'-0"



2 CARRIAGE RIGHT ELEVATION
1/8" = 1'-0"

BUILDING COLOR SCHEME #1

COLOR #1: BENJAMIN MOORE 1616 STORRY SKY
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COLOR #3: WOODCRE RUSTIC SERIES "MOUNTAIN CEDAR"
TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
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METAL RAILING: DARK BRONZE

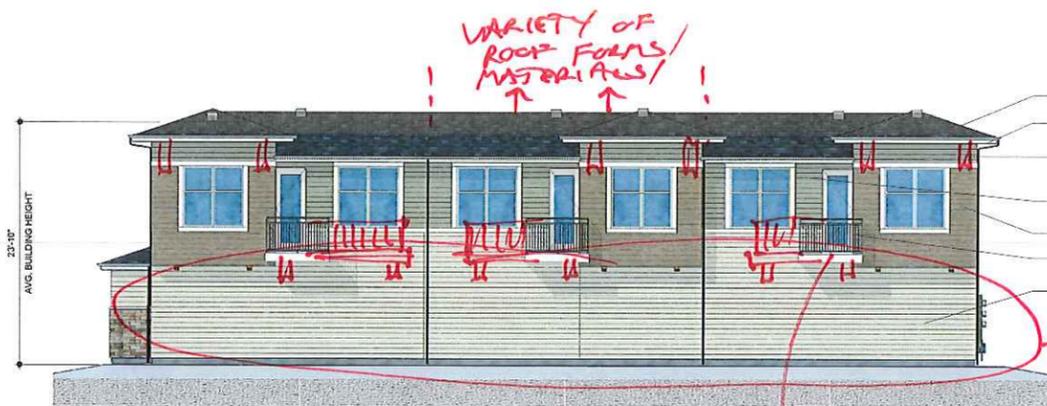
BUILDING COLOR SCHEME #2

COLOR #1: BENJAMIN MOORE 1532 MAJESTIC SAGE
COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
COLOR #3: WOODCRE RUSTIC SERIES "MOUNTAIN CEDAR"
TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
WINDOWS: ATRIUM WINDOWS; VINYL; ALMOND
METAL RAILING: DARK BRONZE

ASPHALT ROOF: TAMKO HERITAGE "RUSTIC BROWN"



3 CARRIAGE LEFT ELEVATION
1/8" = 1'-0"



1 CARRIAGE REAR ELEVATION
1/8" = 1'-0"

THE BUILDING ELEVATIONS SHOWN AND APPROVED HEREON ARE INTENDED TO DEMONSTRATE HOW ALL HVAC AND OTHER MECHANICAL EQUIPMENT SHALL BE SCREENED ACCORDING TO THE TOWN OF ERIE, UNIFIED DEVELOPMENT CODE REQUIREMENTS. IT IS THE APPLICANT'S RESPONSIBILITY TO ENSURE THAT THIS APPROVED SCREENING OCCURS IN THE FIELD AS DEMONSTRATED BY THESE PLANS, REGARDLESS OF CURB REQUIREMENTS, MECHANICAL PLAN CHANGES, OR OTHER CIRCUMSTANCES. FAILURE TO PROVIDE APPROVED SCREENING MAY RESULT IN DELAY OF FINAL INSPECTIONS AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

PROJECT NUMBER: 160992

REVISION DATE: 05-22-2017 ISSUE DATE: 04-27-2017 SHEET 34 OF 36

CARRIAGE ELEVATIONS
NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2

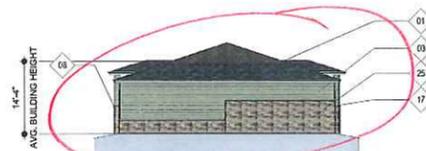
A PORTION OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 69 WEST, AND THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO.

15 ACRES

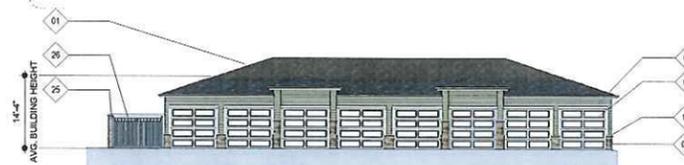
SITE PLAN - SP-000832-2016

KEYNOTES

01	ARCHITECTURAL COMPOSITE SHINGLE ROOF
02	5/4" X 8" PAINTED FASCIA
03	5" CEILING/TILOS LAP SIDING
04	STONE VENEER
05	OVERHEAD GARAGE DOOR
06	STONE SILL
07	SPLIT-FACE CONCRETE MASONRY UNITS
08	METAL TRASH ENCLOSURE GATE



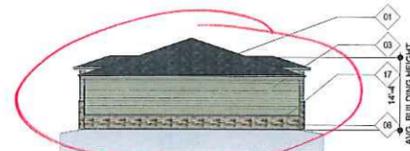
16 LEFT ELEVATION - GARAGE TYPE C
1/16" = 1'-0"



10 FRONT ELEVATION - GARAGE TYPE C
1/16" = 1'-0"



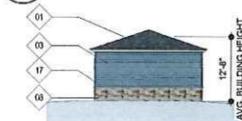
15 REAR ELEVATION - GARAGE TYPE C
1/16" = 1'-0"



9 RIGHT ELEVATION - GARAGE TYPE C
1/16" = 1'-0"



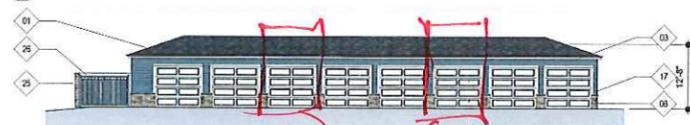
14 REAR ELEVATION - GARAGE TYPE B
1/16" = 1'-0"



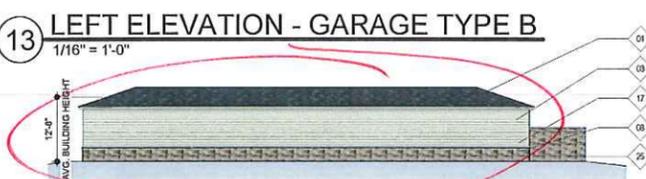
8 RIGHT ELEVATION - GARAGE TYPE B
1/16" = 1'-0"



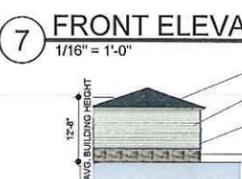
13 LEFT ELEVATION - GARAGE TYPE B
1/16" = 1'-0"



7 FRONT ELEVATION - GARAGE TYPE B
1/16" = 1'-0"



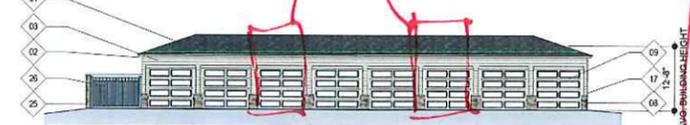
12 REAR ELEVATION - GARAGE TYPE A
1/16" = 1'-0"



6 RIGHT ELEVATION - GARAGE TYPE A
1/16" = 1'-0"



11 LEFT ELEVATION - GARAGE TYPE A
1/16" = 1'-0"



5 FRONT ELEVATION - GARAGE TYPE A
1/16" = 1'-0"

* MATERIAL CHANGES
* DORMERS/GABLES/HIPS
* SPANDREL GLASS
* DETAIL SIMILAR TO APARTMENTS

BUILDING COLOR SCHEME #1

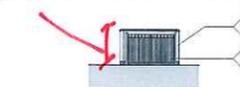
COLOR #1: BENJAMIN MOORE 1616 STORMY SKY
COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
COLOR #3: WOODTONE RUSTIC SERIES "MOUNTAIN CEDAR"
TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
WINDOWS: ATRUM WINDOWS; VINYL; ALMOND
METAL RAILING: DARK BRONZE

BUILDING COLOR SCHEME #2

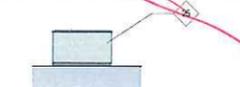
COLOR #1: BENJAMIN MOORE 1533 MAJESTIC SAGE
COLOR #2: BENJAMIN MOORE 1523 EMBASSY GREEN
COLOR #3: WOODTONE RUSTIC SERIES "MOUNTAIN CEDAR"
TRIM/PANEL: BENJAMIN MOORE HC-81 MANCHESTER TAN
WINDOWS: ATRUM WINDOWS; VINYL; ALMOND
METAL RAILING: DARK BRONZE
ASPHALT ROOF: TAMKO HERITAGE "RUSTIC BROWN"

ENLARGE; MATCH MATERIALS & DESIGN OF APARTMENTS.

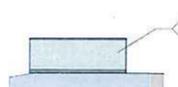
6' max.



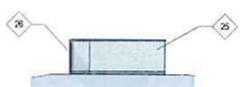
4 TRASH FRONT ELEVATION
1/16" = 1'-0"



2 TRASH REAR ELEVATION
1/16" = 1'-0"



3 TRASH LEFT ELEVATION
1/16" = 1'-0"



1 TRASH RIGHT ELEVATION
1/16" = 1'-0"

VARIETY

THE BUILDING ELEVATIONS SHOWN AND APPROVED HEREON ARE INTENDED TO DEMONSTRATE HOW ALL HVAC AND OTHER MECHANICAL EQUIPMENT SHALL BE SCREENED ACCORDING TO THE TOWN OF ERIE, UNIFIED DEVELOPMENT CODE REQUIREMENTS. IT IS THE APPLICANT'S RESPONSIBILITY TO ENSURE THAT THIS APPROVED SCREENING OCCURS IN THE FIELD AS DEMONSTRATED BY THESE PLANS, REGARDLESS OF CURB REQUIREMENTS, MECHANICAL PLAN CHANGES, OR OTHER CIRCUMSTANCES. FAILURE TO PROVIDE APPROVED SCREENING MAY RESULT IN DELAY OF FINAL INSPECTIONS AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

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HarrisKocherSmith.com

PROJECT NUMBER: 160692

REVISION DATE: 05-22-2017 ISSUE DATE: 04-27-2017 SHEET 36 OF 36

NINE MILE SUBDIVISION FILING NO.1 BLOCK 2



Memo

To: Todd Bjerkaas
From: Matt Wiederspahn, P.E., Development Engineer
Date: August 7, 2017
Subject: **Nine Mile Site Plan**
CC: Russell Pennington
Wendi Palmer
Chad Schroeder

Comments for Preliminary Utility Report:

1. As this is a Site Plan submittal, the utility report needs to be a Final Utility Report with all its associated detail, analysis, and models.
2. The sewer layout and connections will need to be re-evaluated given the recently completed Merrick sewer analysis.

Comments for Phase III Drainage Report:

1. See the attached comments from the Town's Drainage Consultant.

Comments for Site Plan:

1. Final Civil Construction Plans for on-site improvements were not included. Therefore detailed comments on the on-site utilities and improvements cannot be provided.
2. Easement for Town utilities must be a minimum 30 feet wide.
3. On the overall utility plans:
 - a. Pipe sizing for water and sanitary lines are inconsistently labeled. In addition, there are non-standard 10 inch water lines in areas which the Town does not allow. Standard pipe sizes are 8, 12, 16, etc.
 - b. Fire line connections need a valve on the main. The valve layout needs to ensure that fire lines and the nearest fire hydrant are separated by a valve.
4. On the grading plans, contours are not shown on the properties to the east and the contours do not appear to tie into the existing grades at the property line. Contours need to be shown for a minimum of 150 feet off-site.
5. A second paved access needs to be provided to the site.
6. On sheet 17, retaining walls for the pond are being shown directly over storm lines.
7. On sheet 19, a water line stub needs to be provided to the future commercial site.

Comments for Preliminary Plat:

1. Easement for Town utilities must be a minimum 30 feet wide.

Comments for Public & Site Infrastructure Plans:

1. These plans appear to be off-site construction plans for the Multi-Family project and should be titled as such. In addition, they need to be Final Construction Plans. Due to these being preliminary in nature, additional detailed comments will be provided when they are final plans.

2. The Town standard notes and details need to be included in these plans.
3. The sewer layout and connections will need to be re-evaluated given the recently completed Merrick sewer analysis.
4. No plans for the water line connections to Arapahoe Ridge are provided.
5. No plans are provided for the new signal at Arapahoe Road and Beasley Drive and potentially at the Safeway access on Arapahoe Road.
6. All references to N 107th Street need to be removed. It is just Highway 287.
7. On sheet 1:
 - a. Please correctly spell my last name in the Utility Contacts.
 - b. The Town's standard signature block needs to be added.
8. On sheet 3:
 - a. The site plan for the multi-family shows 10 inch water lines on-site which will have to be increased to 12 inch lines. However, these plans are only showing 8 inch lines connecting into Arapahoe Ridge.
 - b. There are lines appearing to connect the two detention ponds separated by the middle access, but no label.
 - c. The water line across the future commercial site needs to have a tee in it to provide for a future connection.
9. On sheets 6 and 7, the erosion control plans do not include any of the off-site areas.
10. On sheet 9 through 11:
 - a. The plan views are missing substantial details typically shown like contours, easement descriptions, existing utilities, street names, etc. In addition, future Highway 287 improvements are only partially shown, while current improvements are not.
 - b. No detail is provided for the Proposed Box Structure at sta1+07.37.
 - c. Manholes vary in size between 7 and 8 foot manholes. In addition, it seems standard CDOT T-Base manholes could be used.
 - d. The ditch pipe outfall needs to be better detailed. The flared end section needs to have a cutoff wall, there needs to be rip-rap for erosion protection and with the pipe coming in at an angle, the far slope of the ditch needs to be armored.
 - e. No utility crossings are shown in the profile.
11. On sheet 13:
 - a. The plan views are missing substantial details typically shown like contours, easement descriptions, existing utilities, street names, etc.
 - b. No details are provided on the existing storm line under Highway 287 that is being connected to.
 - c. The water line crossing is not shown in the profile.
12. On sheet 14:
 - a. The plan views are missing substantial details typically shown like contours, easement descriptions, existing utilities, street names, etc.
 - b. No utility crossings are shown in the profile.
 - c. A section of existing sidewalk on the north side of Arapahoe Road will need to be replaced.
 - d. The structures for the detention pond do not match what are shown on the Site Plan.
13. On sheet 15:

- a. The existing sidewalk will need to be relocated based on the proposed grading.
 - b. The storm outfall needs more detail and will need to follow UDFCD design standards.
 - c. Grading is shown extending off of the Town property.
14. On sheet 17, an existing storm line crossing Arapahoe Road is not shown in the utility plan.
15. On sheet 17 through 19:
- a. All asphalt patch limits on Arapahoe Road need to be at the nearest lane line; meaning no asphalt joints in the middle of lanes.
 - b. A 4 foot wide striped bike lane needs to be provided on the south side of Arapahoe Road.
 - c. Streetlights are needed on the south side of Arapahoe Road.
16. On sheet 18:
- a. Only the limits of the new leg at the Safeway access to be constructed with these plans should be shown and not the entire access.
 - b. A sanitary sewer line is shown on the utility plan crossing Arapahoe Road at the Safeway access.
 - c. The proposed signal at the Safeway access should be labeled as Future unless the plan is to construct it with these improvements.
 - d. There is no detail on what is happening to the existing bus stop on the south side of Arapahoe Road.
17. On sheet 18 & 19:
- a. The right most eastbound lane on Arapahoe Road prior to Beasley Drive needs to be a dedicated right turn only lane. To the east of Beasley Drive it can be an acceleration lane until it tapers to an end.
18. On sheet 21, a cross pan is needed to convey drainage across the access point across from the Safeway access.
19. On sheet 21, an inlet is needed on the southeast corner of the Safeway intersection to capture drainage from the south half of Arapahoe Road.
20. On sheet 22:
- a. An inlet is needed on the southwest corner of the Beasley Drive intersection to capture drainage from the south half of Arapahoe Road.
 - b. There is no method of capturing and conveying the drainage from the south half of Arapahoe Road before it flows off-site.
21. On sheet 24 through 28, all improvements made to Highway 287 will be reviewed and approved by CDOT.
22. On sheet 28:
- a. The crosswalk across the east leg of the intersection changes mid-intersection. We're not sure how this could be ADA compliant.
 - b. The mast arm for westbound Arapahoe Road would put signal heads to the left of the lanes over eastbound traffic. This is not MUTCD compliant.



Internal Memo

To: Todd Bjerkaas, Community Development Senior Planner
From: Darren Champion, Parks and Open Space Project Coordinator
Date: July 21, 2017
Subject: Nine Mile Corner – Site Plan and Minor Subdivision Plat
Cc: Farrell Buller, Director of Parks and Recreation
Rob Crabb, Parks and Open Space Division Manager

Parks & Open Space Division staff has reviewed the updated subject plans and offers the following comments:

- Previously staff has requested that the developer retain the remaining tree located on the eastern edge of the development. It appears that the developer is unable to keep this tree based on the current design.
- Per Title 10 of the Unified Development Code – 10.6.2 (6.a.) that can be found at the following link <http://www.erieco.gov/documentcenter/view/351> . We would request the developer add additional trees as outlined in Section 6.4 or if this cannot be achieved, a fee-in-lieu payment may be considered by the Town.
- Please show sight triangles as required using Public Works ST5 detail that can be found at the following link <http://erieco.gov/DocumentCenter/View/7422>

August 7, 2017

2480 W. 26th Avenue, Unit B225
Denver, Colorado 80211
Tel: +1 303-964-3333
Fax: +1 303-964-3355

Chad Schroeder, Town of Erie
P.O. Box 750
645 Holbrook Street
Erie, Colorado 80516

www.merrick.com

RE: REVIEW OF NINE MILE CORNER DRAINAGE SUBMITTAL

Dear Chad:

We have reviewed the Nine Mile Corner submittal received on July 25, 2017. The submittal included the Phase II Drainage Report for Nine Mile Corner (Revised May 10, 2017) by Galloway & Company, a Phase III Drainage Report for Outlook at Nine Mile (April 27, 2017) by Harris Kocker Smith, and construction drawings for Nine Mile Subdivision Filing No.1 Flock 2 (Revised May 22,2017) by Harris Kocker Smith. We have the following comments to offer:

Phase II Drainage Report for Nine Mile Corner:

1. In the report, there is confusion of whether this report is a Phase I or Phase II drainage report. Clarify and update the report and provide all items necessary for Phase II reports as specified in the Town of Erie criteria.
2. In Section 2A of the report, it is stated that the site is part of the Erie Outfall Systems Planning Preliminary Design, issued May 2001. This OSP was updated by Love and Associates in December 2007. Verify that all proposed designs are in accordance with the recommendations of the 2007 OSP and any other studies for this area.
3. All developments in the Town of Erie must accept historic flows from off-site properties. It appears that a sump condition exists on the southwest corner of North 107th Street and Arapahoe Road. The existing settling pond at this location is owned by the Town and they have given permission to use the settling pond for detention storage. The analysis of the additional detention with the existing 24" RCP across North 107th Street as the outlet pipe shall be provided. Additionally, the existing conditions at this intersection must be analyzed to determine if runoff overtops the roadways or not based on the capacity of the existing 24" RCP under North 107th Street. If North 107th Street overtops during the existing 100-year storm event condition, the extent of the overtopping shall be identified and accounted for in the development design.
4. Clarify when the study will be completed, and by who, that will determine if and when the downstream channel along 111th Street should be built. No development shall occur until the capacity of the downstream channel has been verified and determined to be able to accept the proposed runoff.

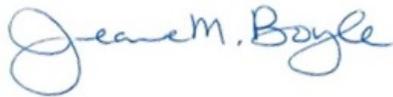
5. For the drainage criteria and design methods, use the most current version of the Urban Storm Drainage Criteria Manual (USDCM) and the Town of Erie Standards and Specifications.
6. Utilize the current version of the UD-Detention spreadsheet (v3.07, February 2017) for the design of on-site ponds.
7. It appears that the aerial on the drainage plan (DR01) may have covered items including contours and drainage basin divides. Update drainage map to show these items as specified in the Town of Erie criteria. It is also unclear how the outlet from the proposed ponds are connected to the outfall storm system; please clarify.

Phase III Drainage Report for Outlook at Nine Mile:

1. In Section C of the report, it is stated that the site is part of the Erie Outfall Systems Planning Preliminary Design, issued May 2001. This OSP was updated by Love and Associates in December 2007. Verify that all proposed designs are in accordance with the recommendations of the 2007 OSP.
2. The description of Basin O1 states that the major storm event runoff escapes the Site un-detained. Please also describe the flow path of the minor storm event. For the major storm event, provide calculations to verify that the existing downstream inlets in Arapahoe have adequate capacity to intercept this runoff.
3. Runoff from Basin C2 flows towards Design Point 10. Please state that this is the same location as inlet C6 in the basin description.
4. Provide calculations for sizing, details, and plans of connection to the storm sewer system for all landscape drains. Verify that the homeowners' association will maintain the landscape drainage system. Since all streets appear to be private, clarify that all inlets and storm sewers within the development will be maintained by the homeowners' association.
5. Per the Town of Erie criteria, Phase III drainage reports shall include hydraulic computations for the storm sewer systems including sewer profiles and open channel designs among others. Provide calculations and documentation of all hydraulic computations.
6. Provide details and plans for the EDB and outlet structure.
7. Clarify that the EDB has available volume for adequate surcharge depth and a micropool at the outlet structure.
8. Per the Town standards, existing off-site topography shall be shown for a distance of at least fifty feet in every direction. As a minimum, show all areas that drain to the site as indicated in the report.

9. It appears the storm sewer from Design Point 17 to Design Point 19 has been removed on the Overall Utility Plan. Clarify the alignment of the storm sewer system and correct plans and calculations as necessary.
10. It appears that the existing street at the southernmost portion of the site near Lucerne Drive will become a dead-end street in proposed conditions. Clarify if the existing gate will remain in place or identify what other safety control measures will be installed.

Sincerely,
Merrick & Company



Jeanne M. Boyle, PE, CFM



Clare Steninger, PE

June 16, 2017

MEMORANDUM

TO: Todd Bjerkaas

FROM: Charles M. Buck, P.E., PTOE

SUBJECT: Planned Development Rezoning
PROJECT: Nine Mile Corner, Site Plan and Minor Subdivision Plat
FHU # 95-190

I have reviewed the materials provided for the above referenced project, to be located on 43 acres in the southeast quadrant of the US 287/Arapahoe Road intersection. A mixed-use development is proposed; this submittal addresses the residential component of Nine Mile Corner. We have reviewed a prior submittal for this development, per our referral response dated January 18, 2017.

A flash drive containing many documents and drawings was provided, some of which are not directly related to traffic and transportation aspects of the site. Therefore, I have focused my review on the following: Traffic Impact Study (Kimley Horn, April 2017), Written Statement (Norris Design, May 22, 2017), Road Construction Plans (Galloway, April 2017), and Site Plan (Harris Kocher Smith, May 2017). I have looked at these materials specifically from the perspective of traffic engineering and transportation planning but not general civil or utility engineering. I have the following comments:

Written Statement

- The site is divided into Block 1, the commercial component, and Block 2, the residential component. With this submittal, only the residential component of development is being considered.
- Per the Written Statement, three site accesses are proposed: two full- movement accesses on Arapahoe Road and one full-movement access on US 287 (through the future commercial site. *[In the future, the commercial component will add two more site accesses: one Right-In/Right-Out (RIRO) access on Arapahoe Road and one RIRO access on US 287].*
- Although only the three accesses are mentioned in the statement, the Roadway Construction Plans include all five accesses as well as improvements at the intersection of US 287/Arapahoe Road.

Traffic Impact Study

- The Traffic Impact Study (TIS) evaluates three future scenarios: 2019, 2020, and 2040. The 2019 evaluation isolates the traffic impacts specific to the residential component, in which the commercial uses are not yet developed. In the 2019 scenario, only two accesses are assumed: at Arapahoe Road/Beasley Drive, and at the full-movement site access on US 287.
- In our previous review comments, we noted that the proposed accesses along US 287 did not meet CDOT spacing criteria and would require variances from the standards established in the *State Highway Access Code*. The full-movement access, which is proposed to be signalized, also does not meet signal spacing criteria. The current submittal has refined the access locations, but access spacing concerns remain. The TIS notes the need for variances.
- The report does not contain a progression analysis for US 287 that might help justify the proposed signalized site access. Typically, a progression analysis to support a new traffic signal would be expected.
- The TIS recommends that the existing full-movement access at Lucerne Drive be restricted to RIRO movements. This will impact existing residents to the south of the Nine Mile Corner site.
- The trip generation analysis accounts for both internal trip making and pass-by trips, both of which are appropriate for this type of development. The trip reductions that were applied are documented in Appendix C of the report. Note that, for the pass-by rates, the report references data contained in the 2004 and 2012 editions of ITE's *Trip Generation Handbook*, rather than the current 2014 edition. Any resultant discrepancies would, however, be minor, and would not affect the results of the analyses.
- The TIS makes recommendations for auxiliary lanes at the site accesses. The recommendations specify acceleration, deceleration, storage, and taper requirements.

Road Construction Plans

- Sheet 16 depicts improvements on the west leg of the US 287/Arapahoe Road intersection. The existing raised "pork chop" median is to be reduced in order to provide an additional left-turn lane and an additional through-lane eastbound. The right-turn channelization is to be shifted south. The existing signal pole assembly is to be reset. My concerns are:
 - The transition to the lane improvements is too abrupt; appropriate transition taper should be provided.
 - The existing mast arm for westbound signal heads will be too short when relocated. The heads will not extend above the westbound lanes. A new mast/arm assembly will likely be required.
- Sheet 18 depicts improvements at the full-movement access aligning with the existing Safeway access. A traffic signal is shown. A westbound left-turn lane of about 150 feet is depicted. My concerns are:

- The TIS does not show volumes at this intersection for the residential component. A signal will not be warranted until commercial development occurs; therefore, this intersection should instead have a STOP sign (MUTCD R1-1) on the northbound approach.
- Sheet 19 depicts improvements at the site access aligning with Beasley Drive. A traffic signal is depicted, as is a westbound left-turn lane of about 150 feet. My concerns are:
 - The volumes in the TIS would not be sufficient to warrant a signal in 2019. Until warrants are met, a STOP sign should be used to control the northbound approach.
 - An existing bus stop is located just east of this intersection. The proposed widening along the south side of Arapahoe Road will require a relocation of the bus stop.
- Sheet 24 depicts improvements at the proposed full-movement access on US 287. A southbound left-turn lane is shown with about 410 feet of decel/storage and 300 feet of taper. Dual left-turn lanes are shown exiting the site. My concerns are:
 - The TIS recommends 500 feet of decel/storage to accommodate the projected residential traffic in the southbound left-turn lane.
 - The outbound dual lefts are recommended to include 200 feet of storage; the plans do not extend into the site sufficiently to show this improvement.
- Sheets 26 and 27 depict improvements at US 287/Arapahoe Road. In addition to improvements discussed above (for Sheet 16), widening of Arapahoe Road and a shift south in the southeast radius are shown. My concerns are as follows:
 - Shifting the radius south will impact an existing pedestrian signal pedestal pole. Relocation or replacement is required.
 - With the proposed widening along the south side of Arapahoe Road, the existing mast arm in the northeast quadrant will no longer reach over the eastbound lanes. This equipment will likely need replacement.
- Sheet 28 appears to be a duplicate of Sheet 27.

Site Plan

- Sheet 2 shows on-site improvements at the Beasley Drive access on Arapahoe Road. A northbound left-turn lane of about 50 feet is depicted; the TIS recommends 100 feet of storage for this movement.

The above constitutes my review of the materials provided. Please call if you have any questions or need additional information.



MOUNTAIN VIEW FIRE RESCUE

3561 N. Stagecoach Road • Longmont, CO 80504

(303) 772-0710 • FAX (303) 651-7702

July 5, 2017

Mr. Todd Bjerkaas
Erie Community Development
P.O. Box 750
Erie, CO 80516

Dear Mr. Bjerkaas:

I have reviewed the submitted material pertaining to the Nine Mile Corner located south of Arapahoe Road and east of Highway 287 in Erie. The Fire District does not object to the proposed development provided the development is able to meet the requirements of the Fire District. All applicable codes must be met as they pertain to building construction, water supply, fire hydrant locations, and fire department access.

It appears that fire hydrant locations are acceptable as shown on the plans submitted. Access appears satisfactory as at least 26 feet has been provided to stage fire apparatus for the multi-family buildings.

Plans for all buildings will need to be submitted to the Fire District for review and approval before buildings permits should be issued.

We appreciate being involved in the planning process, should you have any questions please contact me at 303-772-0710 x 1121.

Sincerely,

LuAnn Penfold
Fire Marshal

cc: project file

lp07.01.17



Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303. 571.3284
donna.l.george@xcelenergy.com

July 6, 2017

Town of Erie Community Development Services
645 Holbrook / PO Box 750
Erie, CO 80516

Attn: Todd Bjerkaas

Re: Nine Mile Corner Site Plan and Minor Subdivision Plat

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the site plan and minor plat for **Nine Mile Corner**. As always, thank you for the opportunity to take part in the review process. To ensure that adequate utility easements are available within this development, PSCo requests that minimum 10-foot wide utility easements be dedicated on private property abutting all public streets and around the remaining perimeter property lines of Block 1 and Block 2.

PSCo also requests that the following language or plat note be placed on the preliminary and final plats for the subdivision:

Utility easements are dedicated to the Town of Erie for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities. Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.

Public Service Company also requests that all utility easements be depicted graphically on the preliminary and final plats. While these easements may accommodate certain utilities to be installed in the subdivision, some additional easements may be required as planning and building progresses.

In addition, 31-23-214 (3), C.R.S., requires the subdivider, at the time of subdivision platting, to provide for major utility facilities such as electric substation sites, gas or electric transmission line easements and gas regulator/meter station sites as deemed necessary by PSCo. While this provision will not be required on every plat, when necessary, PSCo will work with the subdivider to identify appropriate locations. This statute also requires the subdivider to submit a letter of agreement to the municipal/county commission that adequate provision of electrical and/or gas service has been provided to the subdivisions.

Please be aware PSCo owns and operates existing natural gas and electric distribution facilities within the proposed project area. The property owner/developer/contractor must complete the **application process** for any new gas or electric service, or modification to existing facilities including relocation and/or removal via FastApp, Fax, Email, or USPS (go to: https://www.xcelenergy.com/start_stop_transfer/new_construction_service_activation_for_builders). It is

then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities.

As a safety precaution, PSCo would like to remind the developer to call the **Utility Notification Center** at 1-800-922-1987 for utility locates prior to construction.

If you have any questions about this referral response, please contact me at (303) 571-3306.

Donna George
Contract Right-of-Way Referral Processor
Public Service Company of Colorado

COLORADO GEOLOGICAL SURVEY

1801 19th Street
Golden, Colorado 80401



Karen Berry
State Geologist

July 12, 2017

Todd Bjerkaas
Community Development Services
Town of Erie
P.O. Box 750
Erie, CO 80516

Location:
NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34,
T1N, R69W, 6th P.M.
40.0129, -105.1004

Subject: Nine Mile Corner – Site Plan and Minor Subdivision Plat
Town of Erie, Weld County, CO; CGS Unique No. BO-17-0016

Dear Todd:

Colorado Geological Survey has reviewed the Nine Mile Corner site plan and minor subdivision plat referral. CGS previously reviewed the Nine Mile Corner property at PD rezoning; comments were provided in a letter dated January 31, 2017. I understand the applicant proposes commercial and multi-family development on approximately 43 acres located southeast of the intersection of Highway 287 and Arapahoe Road, site of the former Prince Lake No. 1 water supply reservoir. With this referral, we received a Development Referral requesting CGS's review (June 5, 2017), Nine Mile Corner Site Plan and Minor Subdivision Plat Written Statement (Norris Design, May 22, 2017), Concept Site Plan (April 28, 2017), set of 36 Filing 1 Block 2 Site Plans for the multi-family component of the project (revised May 22, 2017), set of two Filing 1 preliminary plat sheets (Galloway, May 22, 2017), Phase II Drainage Report, Nine Mile Corner (Galloway, May 10, 2017), Phase III Drainage Report for Outlook at Nine Mile (HKS, April 27, 2017), Geotechnical Investigation, Nine Mile Corner – Apartments (CTL/Thompson, February 17, 2017), Preliminary Geotechnical Investigation, Nine Mile Corner – Commercial Area (CTL/Thompson, February 24, 2017), and other documents.

CTL provides a good description of subsurface conditions and soil and bedrock engineering properties, and makes appropriate recommendations regarding sub-excavation, foundation design and construction, pavements, surface drainage, etc. **Provided CTL's recommendations are adhered to, CGS has no objection to approval of the site plan and minor subdivision plat.**

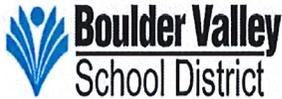
Settlement. CTL states (page 7 of the geotechnical report for the planned commercial area) that, within the former lake area where up to about 21 feet of fill is planned, "We estimated up to about 4 inches of potential settlement in the previous reservoir area after grading. Additional settlement will occur as the fill is placed. We anticipate settlement will occur fairly rapidly after grading, likely within a few months or less. We recommend installing survey benchmarks to monitor the potential settlement after grading. Construction of the north anchor should be delayed until survey measurements confirm settlement has substantially ceased." **CGS agrees with the recommendations for settlement monitoring and a construction delay until settlement has substantially ceased.**

Thank you for the opportunity to review and comment on this project. If you have questions or require further review, please call me at 303-384-2643, or e-mail carlson@mines.edu.

Sincerely,

A handwritten signature in black ink, appearing to read "Jill Carlson".

Jill Carlson, C.E.G.
Engineering Geologist



RECEIVED
JUL 14 2017
 BY: Planning Office
 303-245-5794
 Fax: 303-447-5118
www.bvsd.org

6500 East Arapahoe, PO Box 9011
 Boulder, CO 80301

June 30, 2017

Town of Erie
 Community Development Services
 Attn: Todd Bjerkaas
 P.O. Box 750
 Erie, CO 80516

RE: Nine Mile Minor Subdivision and Site Plan

Dear Todd:

Thank you for submitting the Nine Mile Minor Subdivision and Site Plan materials for review by the Boulder Valley School District (BVSD). BVSD reviews development application in terms of capacity impacts on neighborhood schools and impacts on school land or facilities. This development application proposes to construct 304 apartment units with an expected impact of 48 students on the Sanchez Elementary, Angevine Middle, and Centaurus High school feeder system. The current capacity status including this project's impacts are noted below.

School	Current Capacity Status (Oct. '16)				Project Impact		
	Resident Students*	Program Capacity	School Enrollment	Perc. Capacity	Student Impact	New Enrollment	New % Capacity
Elementary	648	369	344	93.2%	27	371	100.5%
Middle School	1096	950	710	74.7%	9	719	75.7%
High School	1591	1833	1127	61.5%	7	1134	61.9%
Total	3335		2181		43		

*represents the number of BVSD students for the given grade level living within the attendance area.

note: resident and enrollment information above is preliminary and subject to revision

Currently, the BVSD planning office is analyzing the impact of this development as well as changes to the Erie Comprehensive Plan and will update this referral response when that process is complete. It is clear Sanchez Elementary cannot accommodate the student impact from this and other new development, however Angevine Middle and Centaurus High will require further analysis. The addition of residential units from this development may accelerate the need of the school district to acquire a second school site in this area.

RECEIVED

Since the Nine Mile development is not currently party to any land dedications to the school district, each unit will be assessed the cash in-lieu of land fee per the Fair Contributions for School Sites Intergovernmental Agreement between the Town of Erie and BVSD. Currently, that fee is \$589 for an apartment unit, however the fee charged will be the fee in effect at the time of payment.

If you have any other questions, concerns, or further clarifications, feel free to contact me at 303-245-5794 or via e-mail at glen.segrue@bvsd.org.

Sincerely,



Glen Segrue, A.I.C.P.
Senior Planner



COLORADO

Department of Transportation

Region 4

10601 W. 10th Street
Greeley, CO 80634
(970) 350.2148 (Fax) 350.2198

June 30, 2017

AJ Krieger
Town of Erie
645 Holbrook Street
Erie, CO 80516

RE: Denial of State Highway Access Permit Application

Dear Mr. Krieger:

On May 22, 2017, your Application for Access Permit was accepted for review by this office. The application requested a new full movement, signalized access to your property to serve a 130,000 sq. ft. superstore, 130,000 sq. ft. home improvement store, 18 fueling station gas station, and 35,800 sq. ft of retail/restaurants. The property is located on the east side of US 287, between Arapahoe Road and Lucerne Drive, in the southeast quadrant of the US 287/SH 7 (Arapahoe Road) intersection.

1. Colorado Revised Statutes 43-2-147, Paragraph (1)(a) declares all state highways to be controlled access highways in order to protect the public health, safety and welfare, to maintain smooth traffic flow, to maintain highway right-of-way drainage and to protect the functional level of public highways. The allowance of this access would counter the Transportation Commission's regulation pursuant to statutory authority.
2. The access would create a substandard design with the installation of necessary auxiliary lanes and signalization less than 320 feet from an already permitted signalized intersection.
3. An Access Management Plan for this section of state highway identified a full movement/signalized access across from the existing Lucerne Drive.
4. The property has other reasonable access available from the city street on the north property boundary.

We have given careful consideration to the application submitted and for the reasons listed above, we are denying your request for new access at this location because the access request complies with neither the statute nor the State Highway Access Code (2 CCR 601-1).



Enclosed are copies of the materials that you submitted. Also enclosed is a copy of Section 2.9 explaining your rights concerning this denial, Section 3.10 of the State Highway Access Code and a copy of the Access Statute.

If you have any questions, please contact Mr. Tim Bilobran, Permit Manager at (970) 350-2163.

Sincerely,



Gloria Hice-Idler
Region 4 Permit Manager

Enclosures

Xc: Karami
Milan, OAG
Olson, RTD
Nguyen





Town of Erie Open Space and Trails Advisory Board

From: Town of Erie Open Space and Trails Advisory Board (OSTAB)
To: Todd Bjerkaas, Senior Planner, Community Development
Date: July 17, 2017

**Subject: Nine Mile Corner, Site Plan and Minor Subdivision Plat
Document (Site Plan) Date: May 22, 2017
Location: SE corner of US 287 and Arapahoe**

OSTAB has reviewed the package materials, compared them to Town planning documents, and prepared the following comments, questions, and recommendations for the Town's consideration in evaluating this project.

Open Space and the Natural Areas Inventory (NAI):

Discussion: Sheet 3 of the PD-Development Plan indicates that this roughly 47 acre parcel is being subdivided into 2 tracts: a 33 acre commercial tract on the western side, and a 14 acre high density residential tract on the east side. This Site Plan is for only the residential tract. That Sheet also states that there will be 330 dwelling units. The Town's Unified Development Code (UDC), section 10.6.3, requires 17 acres of dedicated open space for every 1,000 new residents; each dwelling units is assumed to have 2.85 occupants. We calculate that the required dedicated open space is roughly 15.9 acres.

There is no proposed dedicated open space in this application. The Town at its discretion may require the developer to pay cash in-lieu of dedicating land. There are multiple criteria to determine whether or not to substitute cash for land, including:

1. Are any sites in the Natural Areas Inventory (NAI) within the application area. There are none;
2. Is there a location that is contiguous with, or connected to, adjacent open space or parks. There is none;
3. Would open space serve one or more of many functions, such as:
 - a. Preserving rural/agricultural lands;
 - b. Providing aquatic, wetland and riparian habitat and buffers; or
 - c. Preserving native wildlife habitat and their migration and travel corridors.

In our opinion, there is no location within this application area that essentially fulfills any of the functions described in the UDC. Thus we believe that cash, not land, should be used to meet the requirement for dedicated open space in the UDC

Recommendation: Pay cash in lieu of dedicating land to meet the open space requirement in the UDC.

Spine Trail and Neighborhood Trails:

Discussion: Spine Trails provide a town-wide network that connect neighborhoods, town facilities and nearby municipalities. There are no adjacent Spine Trails. The PROST (Parks, Recreation, Open Space

and Trails) Master Plan does not contain a proposed spine trail on this property. The applicant is proposing an 8-foot concrete trail, as described in the written statement:

“an 8-foot concrete regional trail connection is provided that originates at the Arapahoe Road entrance to the north and proceeds south along the eastern boundary of the project, eventually turning south and terminating at Lucerne Dr. in the existing single-family detached neighborhood to the south of this project. This trail corridor will serve both the residents of this development as well as the residents of the surrounding community”...On the east side...”a public trail corridor is provided in this area that both increases the buffer area and supplies additional room for enhanced landscaping. The southern side of the property includes a trail corridor and heavily landscaped buffer area as well, and provides a minimum 100’ building setback from the existing single-family detached neighborhood located in Lafayette.”

We agree with the proposed 8’ concrete trail. There is not a sheet in the Site Plan entitled “Trails Plan”. Therefore, we used Sheet 7, Overall Landscape Plan, to review the exact location of this trail and buffer. It appears that the portion from Arapahoe Rd southward past the detention basin and first 2 buildings is a sidewalk on the eastern side of the proposed road opposite Beasley Dr. The trail then runs along the eastern and southern borders as described in the Written Statement. We calculate that the width of the landscaped buffer (from the buildings/garages to the property line) on the east side is roughly 30 feet; on the south side, it is roughly 44 feet. We believe that an appropriate width is 50’

It is probable that many residents of the proposed multi-family dwelling units will want to access the existing trails north of Arapahoe Rd. Safe pedestrian access across Arapahoe Road should be an important design component. The heavily used intersection of US 287 and Arapahoe Rd, which has a traffic signal, is NOT a safe pedestrian access across Arapahoe Rd. Therefore, there should be a traffic signal on Arapahoe Rd, either at Beasley Drive or the eastern access way into the Safeway shopping center.

Recommendations:

1. Build a meandering 8’ concrete trail in a landscaped buffer on the south and east sides, as described in the Written Comments and on Sheet 7;
2. Increase the width of the landscaped buffers to 50’;
3. Provide a safe pedestrian access across Arapahoe Rd.

Please pass this referral letter to the Applicant, and appropriate town departments, boards, and commissions. Thank you for your attention to these matters. OSTAB is available to discuss any of the above in more detail as needed.

Sincerely,

Open Space and Trails Advisory Board

Phil Brink
Bob Braudes
Dawn Fraser
Monica Kash
Nicole Littmann
Ken Martin (Chair)
Joe Martinez