DOMBROWSKI, COLIN, 4/30/2026 1:13 PM

HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

EPC STORMWATER REVIEW COMMENTS IN ORANGE BOXES WITH BLACK TEXT

LEGAL DESCRIPTION:

LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1

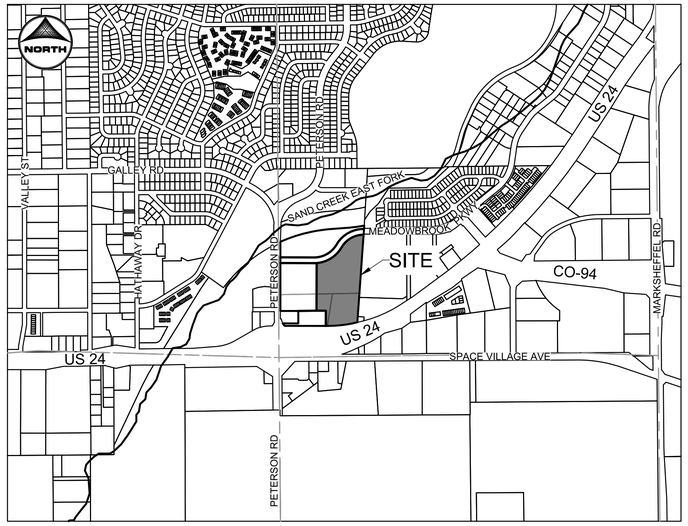
EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FILED NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC)
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   D. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY EPC.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDE… WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERE… LOCATION OF EXISTING UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPLACED AT THE CONTRACTORS EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
4. ALL BACKFILL, SUB-BASE AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEERS RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.
5. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED.
6. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC ECM APPENDIX K - 1.2C
7. ALL INTERSECTION ACCESSES ARE TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLE AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" IN THIS AREA.
8. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED FOR ROADS SHALL BE PER DESIGN REPORT BY OWNERS GEOTECHNICAL ENGINEER. OWNERS GEOTECHNICAL ENGINEER TO BE ON SITE AT TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENTS DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
9. TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180n OR EQUAL MAY BE SUBSTITUTED WHERE TYPE I RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.
10. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS AND WITH METRO DISTRICT CONSULTING ENGINEER APPROVAL.
11. CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED AS-BUILT OF ALL STORM SEWER AND CISTERN INSTALLATIONS, INCLUDING ACCURATE DISTANCES OF MAIN LINES, VALVES, FITTINGS, MANHOLES, AND LOCATIONS OF APPURTENANCES.
12. DRAINAGE EASEMENTS ARE PLATTED THROUGHOUT THE FILING AND ARE NO-BUILD AREAS. ALL OTHER AREAS THAT FALL WITHIN IDENTIFIED GEOLOGIC HAZARD AREAS (SEASONAL STORMWATER POOLING, STANDING WATER CONDITIONS) MAY BE MITIGATED ON A PER LOT BASIS WITH EARTHWORK AND FINE GRADING CONSTRUCTION. NO DISTURBANCE FOR EARTHWORK OR GRADING SHALL TAKE PLACE WITHIN THE DESIGNATED DRAINAGE EASEMENTS AND ANY SITE AND FUTURE LOT DISTURBANCE THAT ALTERS THE EXISTING TOPOGRAPHY SHALL DRAIN TO THE DRAINAGE EASEMENTS ON SITE.

Add as Note 16
- 16.El Paso County does not own and is not responsible for the underdrains or groundwater discharge systems shown on these plans and assumes no liability for water rights administration by approving these plans. Maintenance and water rights are the responsibility of the developer and _____[xx metropolitan district, or yy property owner's association



VICINITY MAP
SCALE: 1" = 1000'

PROJECT CONTACTS:

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JOVENCHI II, MARATHON HOLDINGS LLP,
JOHN VENEZIA ESTATE
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TELE: 719-491-2158

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3773 CHERRY CREEK DRIVE NORTH
SUITE 801 EAST TOWER
DENVER, CO 80209
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APPLICANT/OWNER'S REPRESENTATIVE
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TRAFFIC ENGINEER
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COLORADO SPRINGS, CO 80903
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ATTN: MIKE ROCHA
EMAIL: MIKE@SMROCHA.COM

SURVEYOR
MATRIX DESIGN GROUP
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TELE: (719) 575-0100

SHEET INDEX		
SHEET NUMBER	SHEET DESCRIPTION	SHEET TITLE
01	C.01	COVER & NOTES
02	C.02	PLAN & PROFILE I
03	C.03	PLAN & PROFILE II
04	C.04	PLAN & PROFILE III
05	C.05	PLAN & PROFILE IV
06	C.06	PLAN & PROFILE V
07	C.07	PLAN & PROFILE VI
08	C.08	PLAN & PROFILE VII
09	C.09	PLAN & PROFILE VIII
10	C.10	SECONDARY DRAINAGE SYSTEM PLAN I
11	C.11	SECONDARY DRAINAGE SYSTEM PLAN II
12	C.12	SECONDARY DRAINAGE SYSTEM PLAN III
13	C.13	SECONDARY DRAINAGE SYSTEM PLAN IV
14	C.14	DETAILS

ABBREVIATIONS

Δ	DEFLECTION ANGLE
Ø, DIA	DIAMETER
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABC	ASPHALT BASE COURSE
ABD	ABANDONED
AC	ACRE
ADA	THE AMERICANS WITH DISABILITIES ACT
ASPH	ASPHALT
ASS'Y	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
BFE	BASE FLOOD ELEVATION
BLDG	BUILDING
BLVD	BOULEVARD
BM	BENCH MARK
BNDY	BOUNDARY
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FL	FLOW LINE
FOC	FIBER OPTICS CABLE
FT	FOOT OR FEET
GB	GRADE BREAK
GAL	GALLON
HDPE	HIGH DENSITY POLYETHYLENE
HC RAMP	HANDICAP RAMP
HW	HEADWALL
INV	INVERT
KM	KILOMETER
L	LENGTH
LF	LINEAR FEET
M	METER
MIN	MINIMUM
MISC	MISCELLANEOUS
MAINT	MAINTENANCE

Signing and Striping Notes:
1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
2. Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
3. Any deviation from the striping and signing plan shall be approved by El Paso County Department of Public Works (DPW).
4. All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County and MUTCD standards.
5. Street name and regulatory stop signs shall be on the same post at intersections.
6. All removed signs shall be disposed of in a proper manner by the contractor.
7. All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 35 mph or higher shall have 8" upper-lower case lettering on 12" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the FHWA Standard Highway Signs: 2004 Edition with 2012 Supplement. Signal pole mounted and overhead street name signs shall be per MUTCD size standards.
8. All traffic signs shall have a minimum diamond grade retroreflective sheeting that meets ASTM D4956 Type XI sheeting requirements.
9. All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
10. All signs shall be single sheet aluminum with 0.125" minimum thickness.
11. All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Stop bars shall be 24" in width. Crosswalks lines shall be 24" wide and a minimum of 9' long. Crosswalks shall be inlaid in accordance with Section 627 of the 2025 CDOT Standard Specification for Road and Bridge Construction.
12. Word and symbol markings shall be the narrow type.
13. All longitudinal lines shall be a minimum 18 mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as required by CDOT S-627-1.
14. All signs shall be placed in accordance with CDOT Standard S-614-1 or MUTCD Figure 2A-2.
15. The contractor shall notify El Paso County DPW - Inspections (719) 520-6819 prior to and upon completion of signing and striping.
16. The contractor shall obtain a work in the right of way permit from the El Paso County DPW prior to any signage or striping work within an existing El Paso County roadway.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
BARBED WIRE FENCE		
WOODEN FENCE		
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN	G	G
	W	W

STORM SEWER	EXISTING	PROPOSED
MANHOLE		
STORM INLET		
LANDSCAPE DOME INLETS		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER		
CLEAN OUT		
MANHOLE		
PLUG		

WATER		
FIRE HYDRANT		
FIRE DEPT. CONNECTION		
GATE VALVE		
MANHOLE		
METER		
TEE		
REDUCER		

DRY UTILITIES	
ELECTRIC METER	
ELECTRIC PEDESTAL	
ELECTRICAL CABINET	
ELECTRIC VAULT	
ELECTRIC VEHICLE CHARGER	
FIBER OPTIC PULL BOX	
FIBER OPTIC MANHOLE	
FIBER OPTIC PEDESTAL	
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	
GAS METER	
GAS SIGN	
GAS VAULT	
TRANSFORMER	
LIGHT POLE	

MISCELLANEOUS	
SIGN	
BOLLLARD	
ACCESSIBLE PARKING	
PARKING COUNT	10

El Paso County:

County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual, Volumes 1 and 2, and Engineering Criteria Manual as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

_____ _____
Joshua J Palmer — Date
County Engineer / ECM Administrator

Since the pond will be constructed under another project, add the following condition of approval:

Construction of any impervious surfaces (roadways, sidewalks, etc.) within the Hillpointe Apartments Site Development Plan shall not begin until Pond 1 and accompanying stormwater infrastructure required to direct flows from Hillpointe Apartments Site Development Plan to Pond 1 are substantially completed under CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1. (SF2420) These areas require treatment from Pond 1.

PCD FILE NO.: _____

HR GREEN Xrefs: VICINITY-MAP; TB_24x36_2502477-CD

DRAWN BY: CMD JOB DATE: 4/30/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM COVER & NOTES

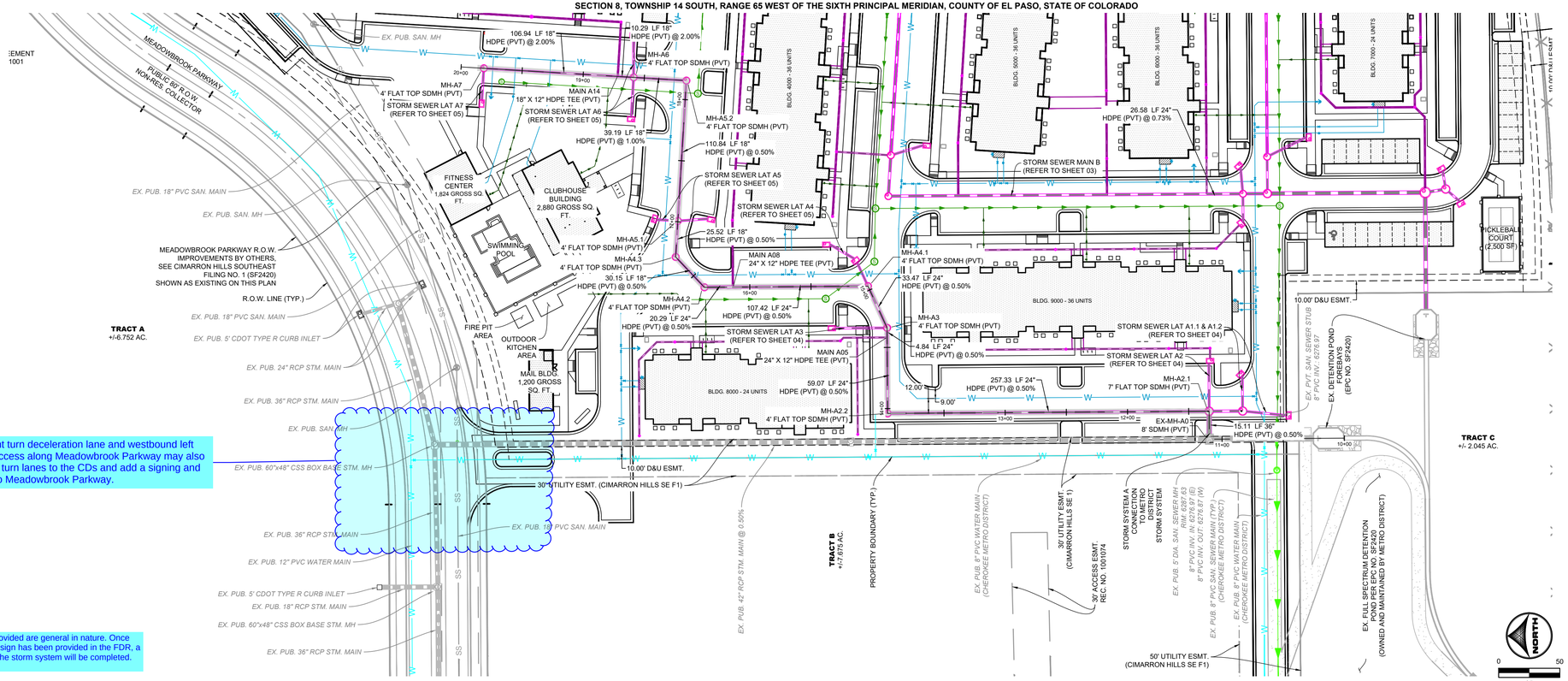
SHEET C.01

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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

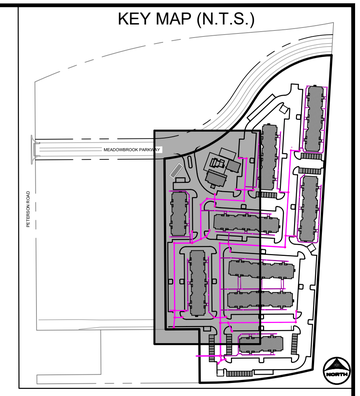
PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



Per the TIS, "an eastbound right turn deceleration lane and westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may also be required." Please add these turn lanes to the CDs and add a signing and striping plan for modifications to Meadowbrook Parkway.

Comments provided are general in nature. Once StormCAD design has been provided in the FDR, a full review of the storm system will be completed.

KEY MAP (N.T.S.)



UTILITY NOTES:

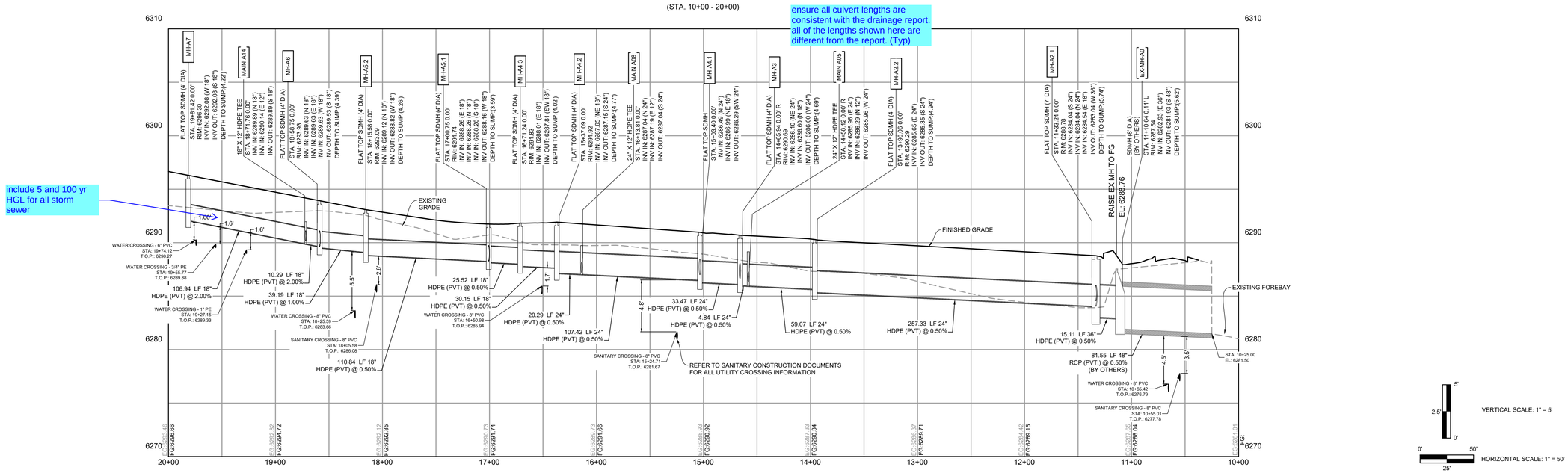
1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.
11. REFER TO SHEETS 10 - 13 FOR SECONDARY DRAINAGE SYSTEM PLAN.

PRIVATE STORM SEWER MAIN A

(STA. 10+00 - 20+00)

ensure all culvert lengths are consistent with the drainage report. all of the lengths shown here are different from the report. (Typ)

include 5 and 100 yr HGL for all storm sewer



PCD FILE NO.: _____

DRAWN BY: CMD	JOB DATE: 4/30/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: RDL	JOB NUMBER: 2502477	0 — 1"	
CAD DATE: 4/30/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm PP			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
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1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE I

SHEET C.02

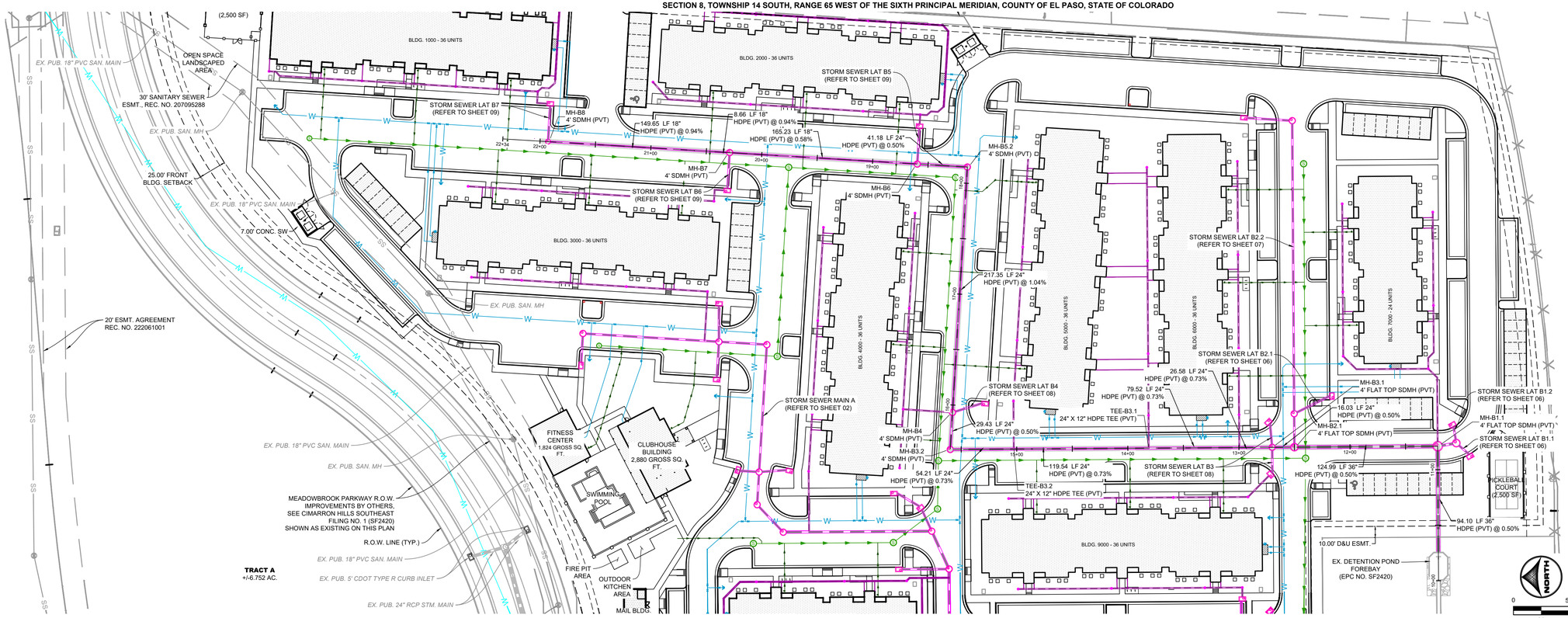
02

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XV-UTIL; 00-XC-UTIL; TB_24x36_2502477-CD; Storm Key Map

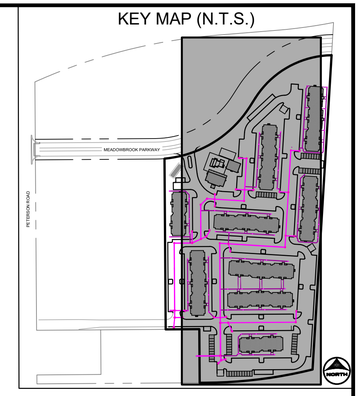
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



KEY MAP (N.T.S.)

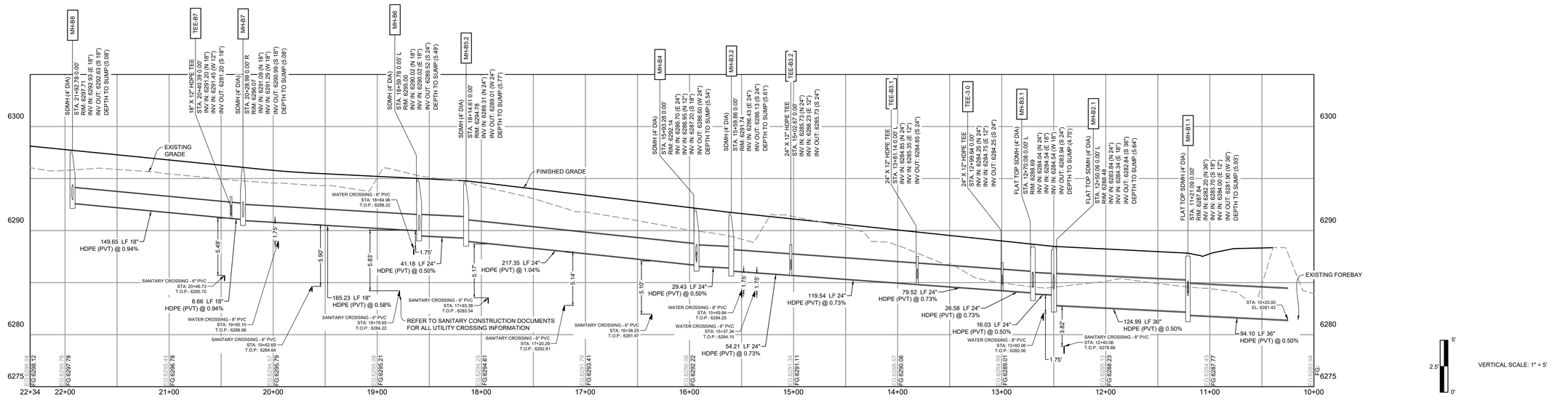


UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
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11. REFER TO SHEETS 10 - 13 FOR SECONDARY DRAINAGE SYSTEM PLAN.

PRIVATE STORM SEWER MAIN B

(STA. 10+00 - 22+25)



PCD FILE NO.: _____

DRAWN BY:	CMD	JOB DATE:	4/30/2026
APPROVED:	RDL	JOB NUMBER:	2502477
CAD DATE:	4/30/2026		
CAD FILE:	J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm PP		

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NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE II

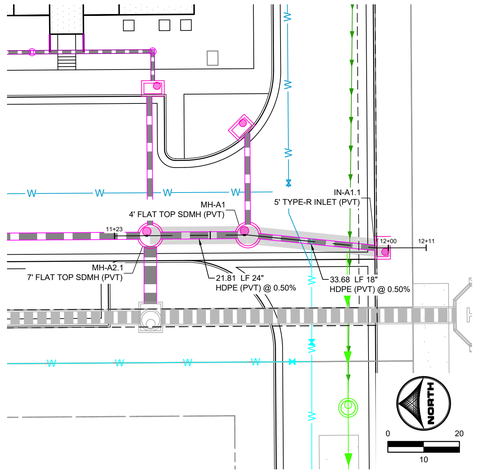
SHEET C.03 | 03

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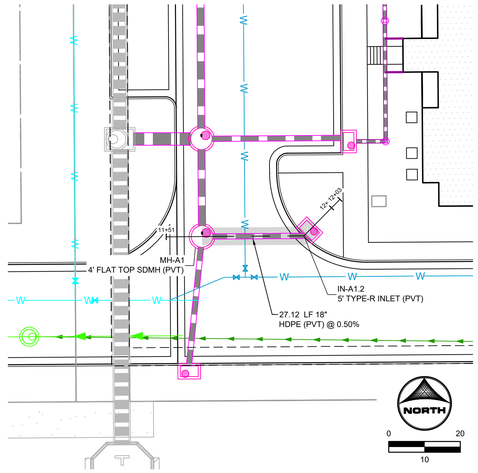
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



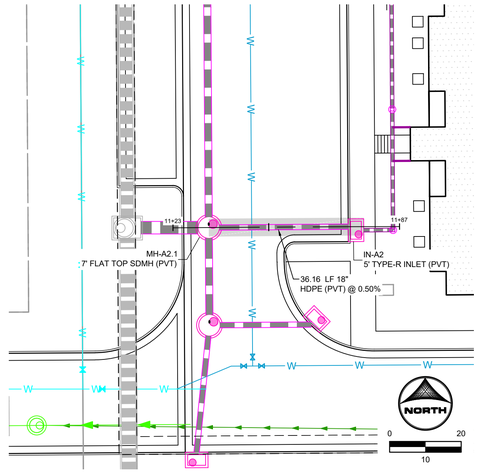
PRIVATE STORM SEWER LAT A1.1

(STA. 11+23 - 12+11)



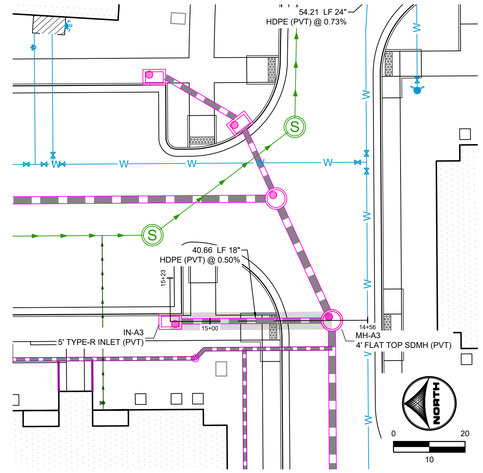
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(STA. 11+51 - 12+03)



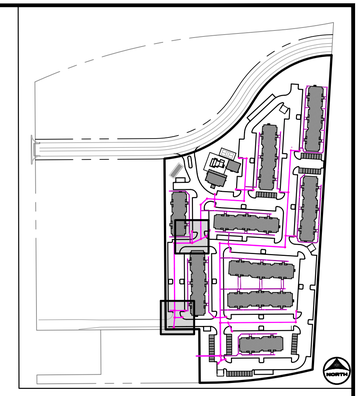
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(STA. 11+23 - 11+87)



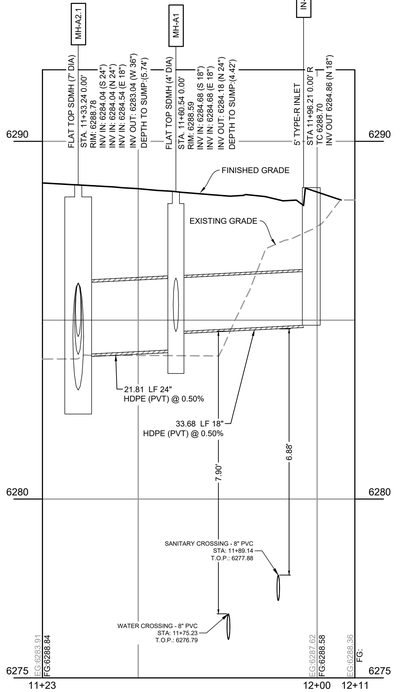
PRIVATE STORM SEWER LAT A3

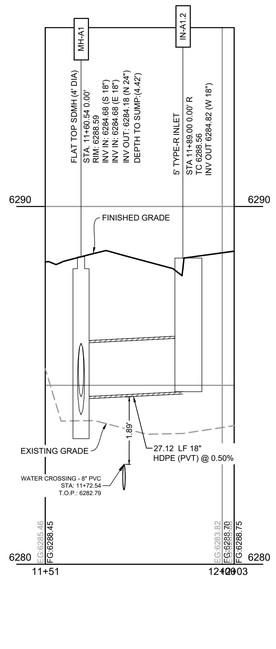
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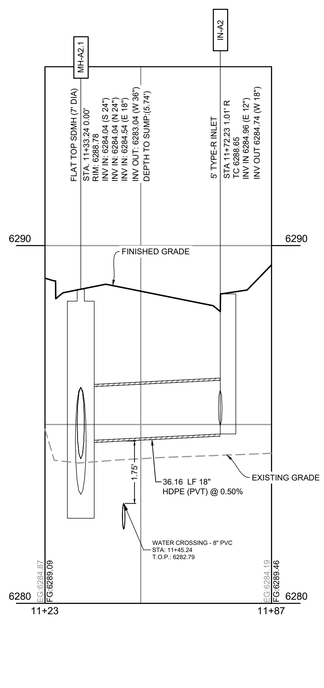


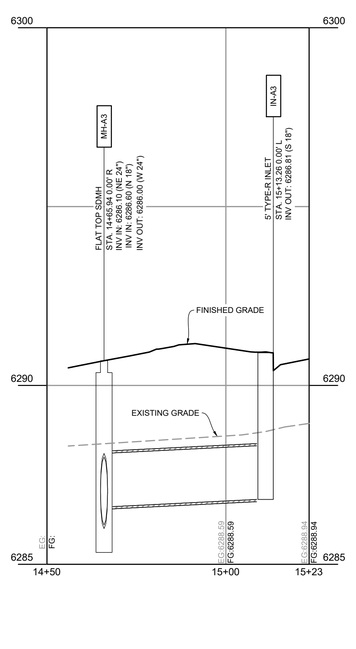
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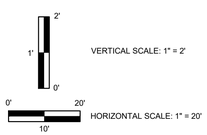
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PCD FILE NO.: _____

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APPROVED: RDL	JOB NUMBER: 2502477		
CAD DATE: 4/30/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm PP			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE III

SHEET C.04

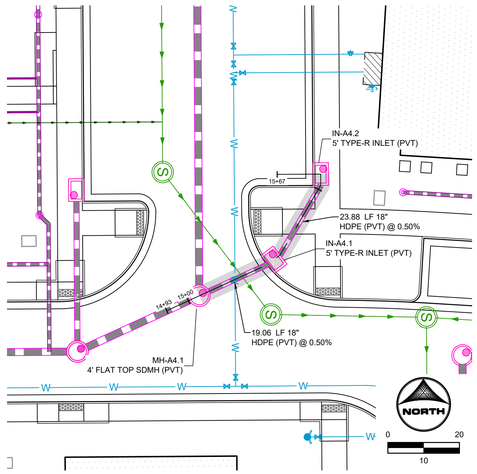
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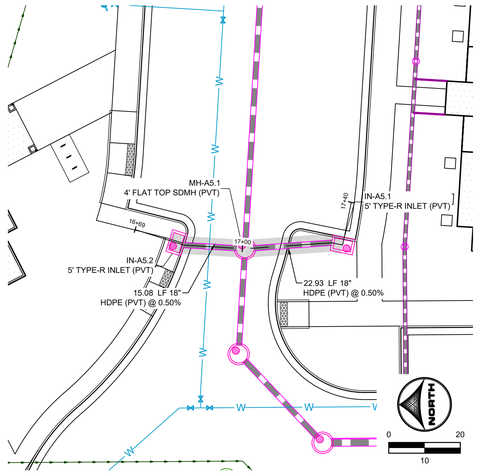
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



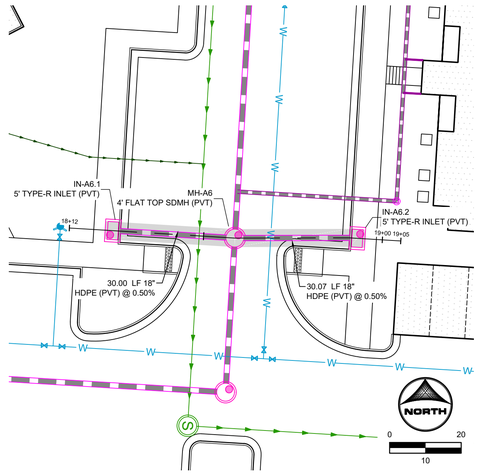
PRIVATE STORM SEWER LAT A4

(STA. 14+93 - 15+67)



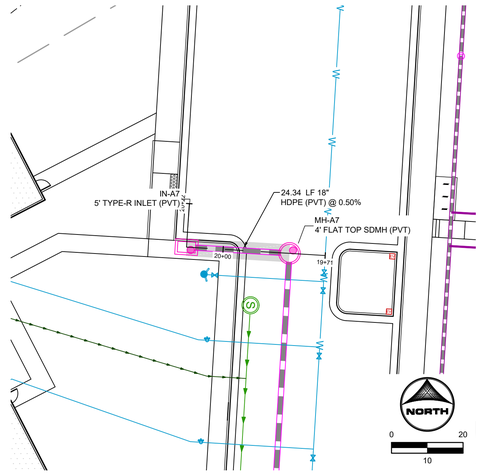
PRIVATE STORM SEWER LAT A5

(STA. 16+69 - 17+40)



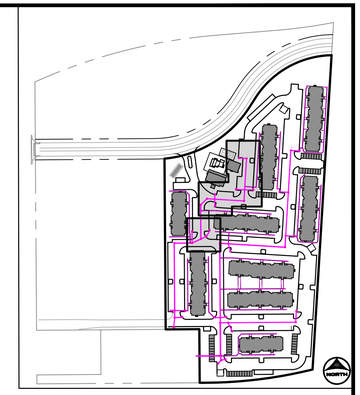
PRIVATE STORM SEWER LAT A6

(STA. 18+12 - 19+05)



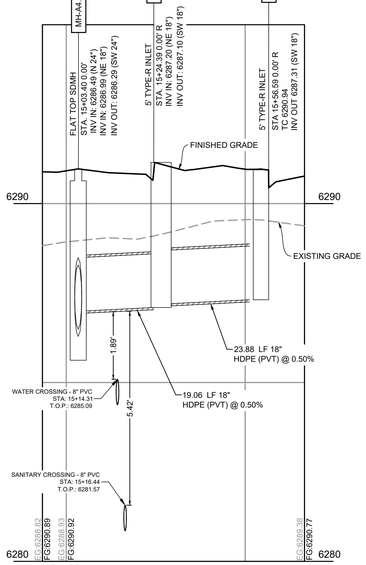
PRIVATE STORM SEWER LAT A7

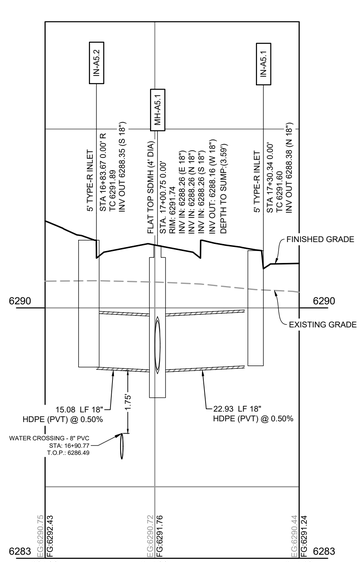
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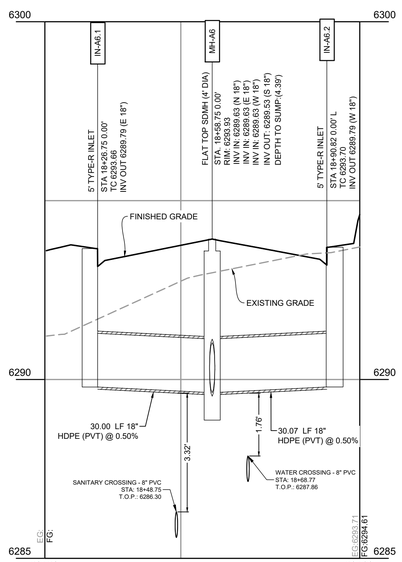


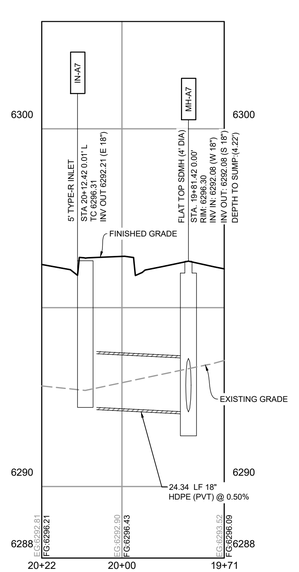
UTILITY NOTES:

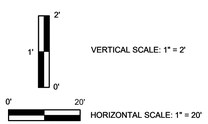
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DRAWN BY:	CMD	JOB DATE:	4/30/2026
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NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE IV

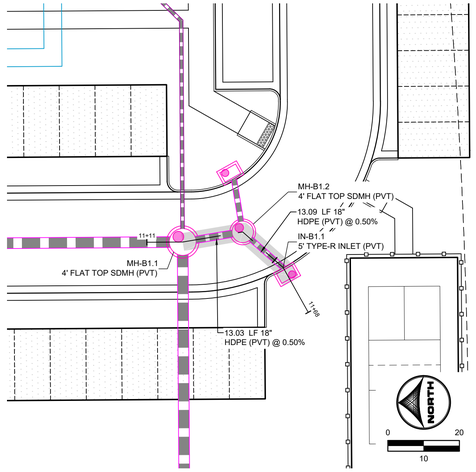
SHEET C.05 | 05

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DOMBROWSKI, COLIN, 4/30/2026 1:15 PM

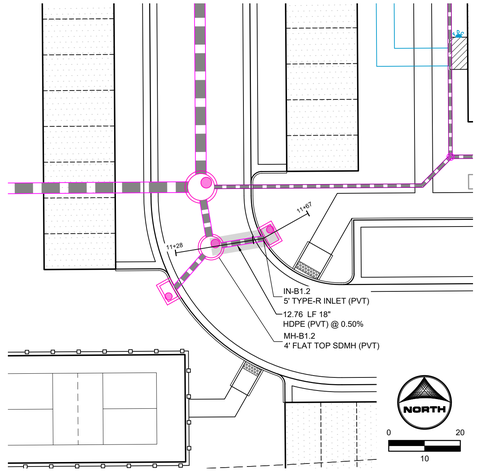
HILLPOINTE APARTMENTS AT PETERSON
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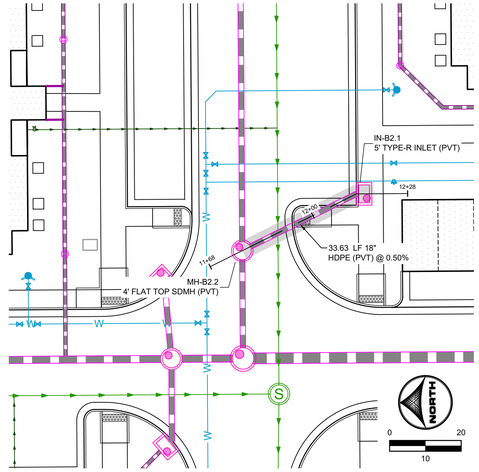
PRIVATE STORM SEWER LAT B1.1

(STA. 11+11 - 11+68)



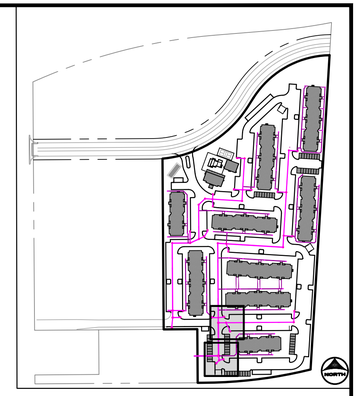
PRIVATE STORM SEWER LAT B1.2

(STA. 11+28 - 11+67)



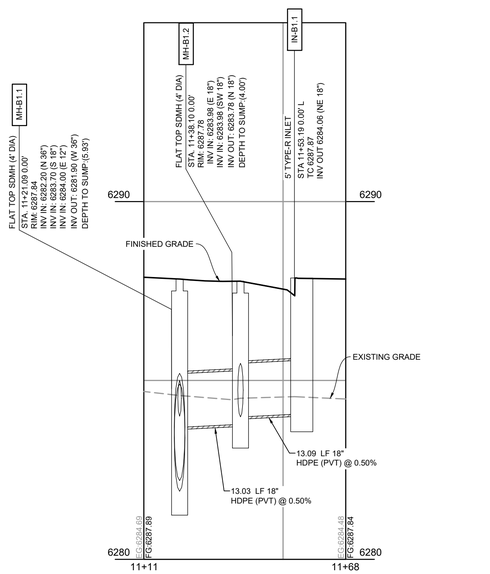
PRIVATE STORM SEWER LAT B2.1

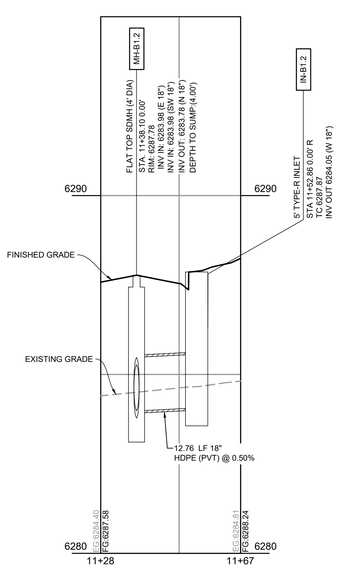
(STA. 11+68 - 12+68)

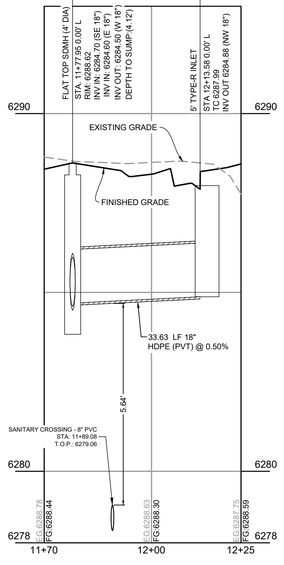


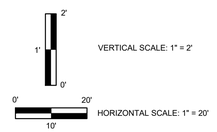
UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
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11. REFER TO SHEETS 10 - 13 FOR SECONDARY DRAINAGE SYSTEM PLAN.









PCD FILE NO.:

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CAD DATE: 4/30/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE V

SHEET C.06

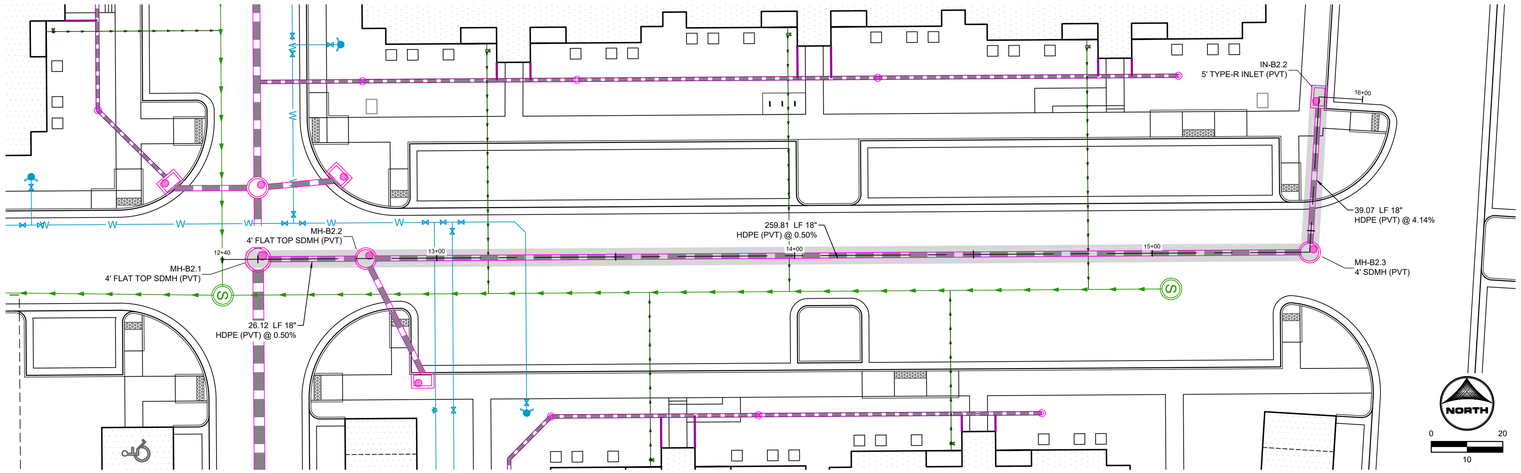
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DOMBROWSKI, COLIN, 4/30/2026 1:15 PM

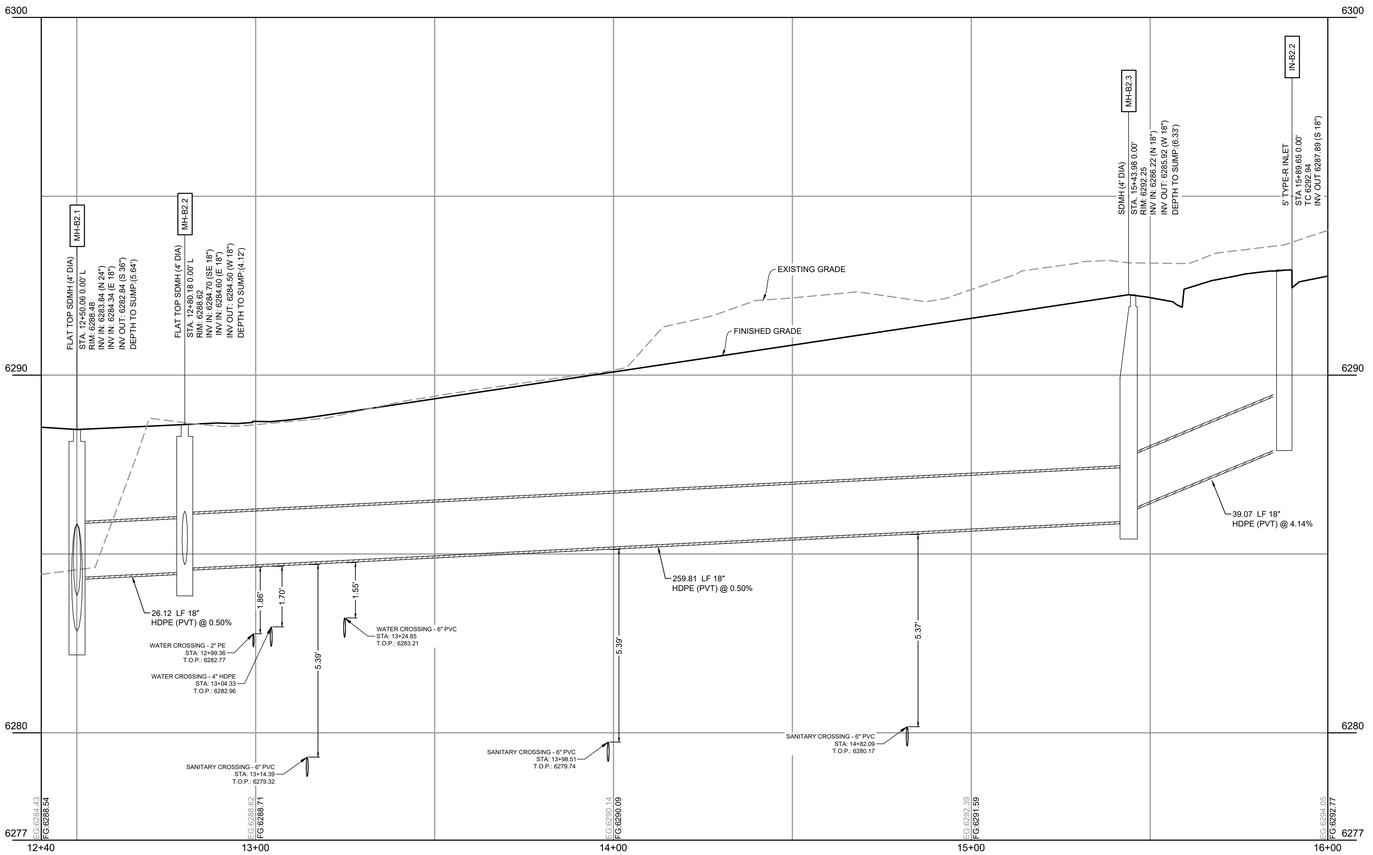
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

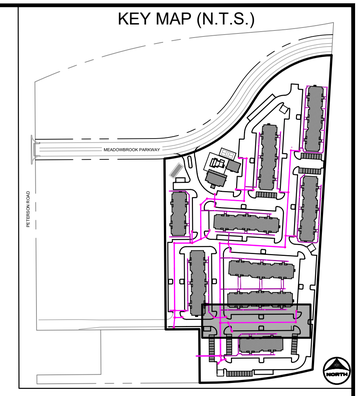


PRIVATE STORM SEWER LAT B2.2

(STA. 12+40 - 16+00)



KEY MAP (N.T.S.)



UTILITY NOTES:

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11. REFER TO SHEETS 10 - 13 FOR SECONDARY DRAINAGE SYSTEM PLAN.

PCD FILE NO.: _____

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APPROVED:	RDL	JOB NUMBER:	2502477
CAD DATE:	4/30/2026		
CAD FILE:	J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm PP		

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE VI

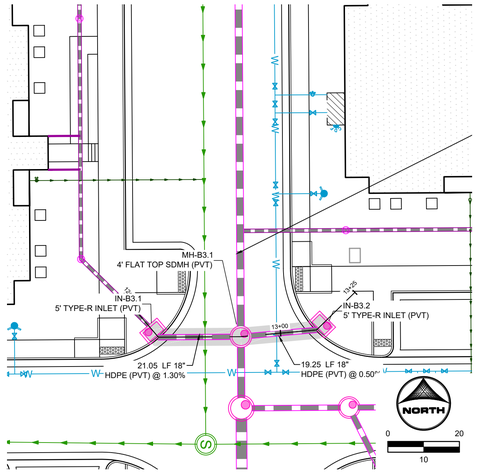
SHEET C.07

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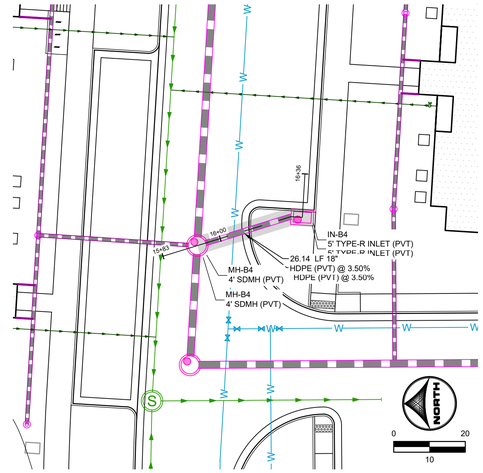
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



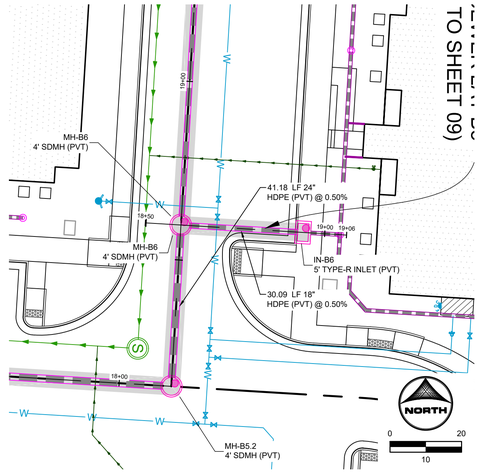
PRIVATE STORM SEWER LAT B3

(STA. 12+51 - 13+26)



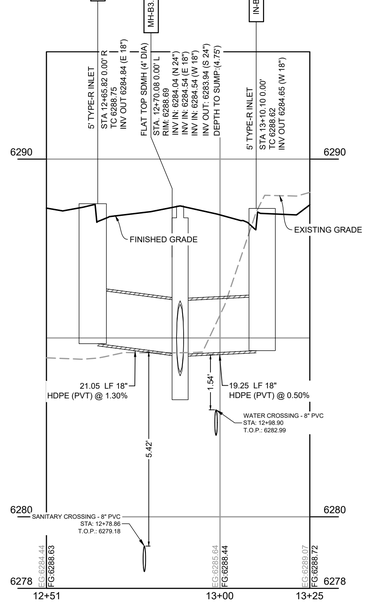
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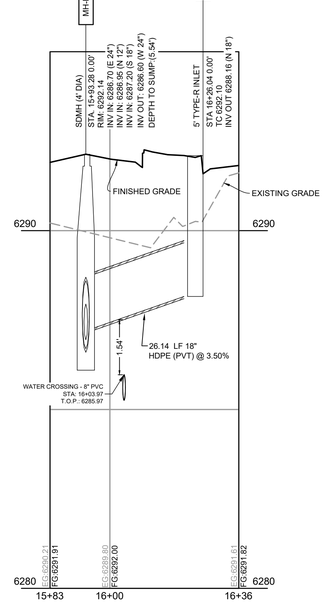
(STA. 15+83 - 16+36)

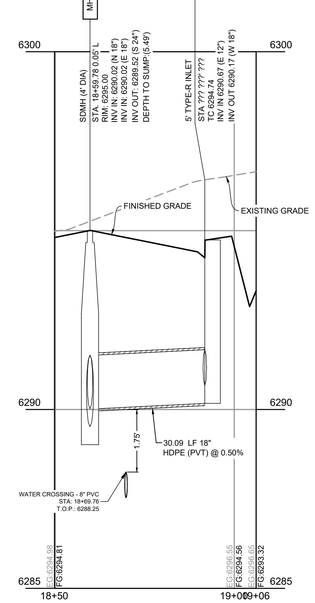


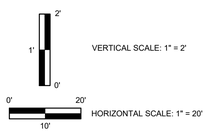
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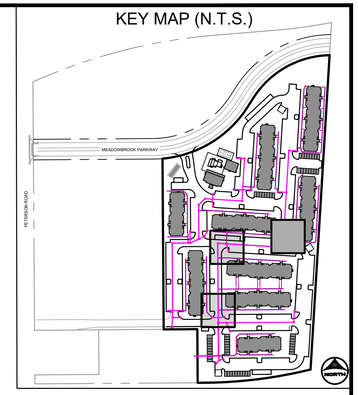
(STA. 18+50 - 19+06)











UTILITY NOTES:

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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE VII

SHEET C.08

08

DOMBROWSKI, COLIN, 4/30/2026 1:16 PM
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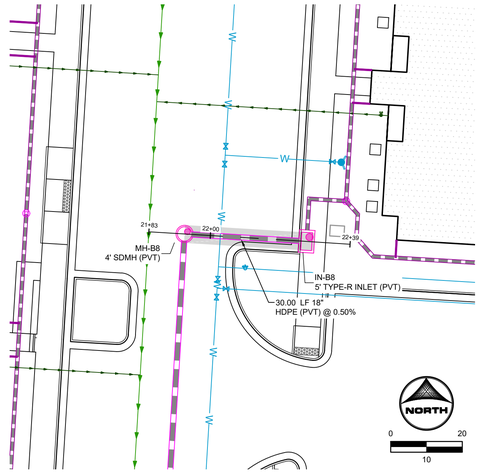
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



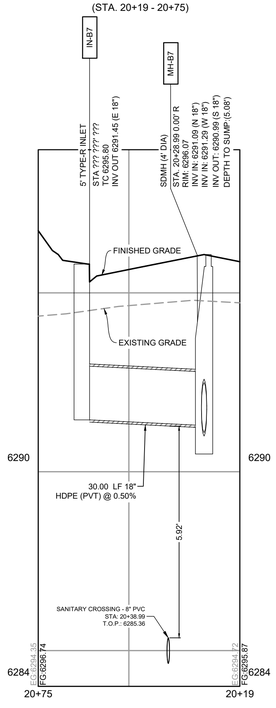
PRIVATE STORM SEWER LAT B7

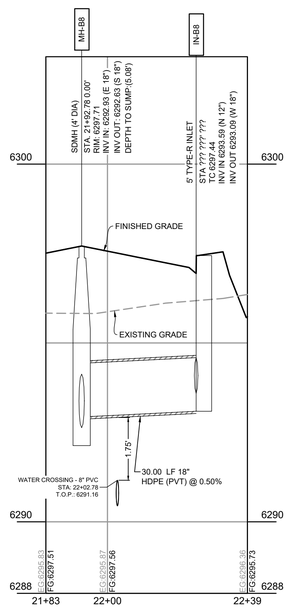
(STA. 20+19 - 20+75)

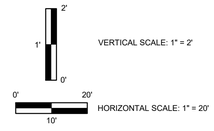


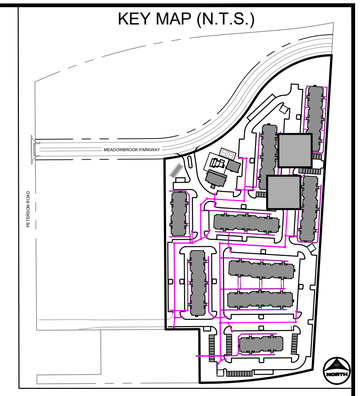
PRIVATE STORM SEWER LAT B8

(STA. 21+83 - 22+39)









UTILITY NOTES:

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11. REFER TO SHEETS 10 - 13 FOR SECONDARY DRAINAGE SYSTEM PLAN.

PCD FILE NO.: _____

DRAWN BY:	CMD	JOB DATE:	4/30/2026
APPROVED:	RDL	JOB NUMBER:	2502477
CAD DATE:	4/30/2026		
CAD FILE:	J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm PP		

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE VIII

SHEET C.09

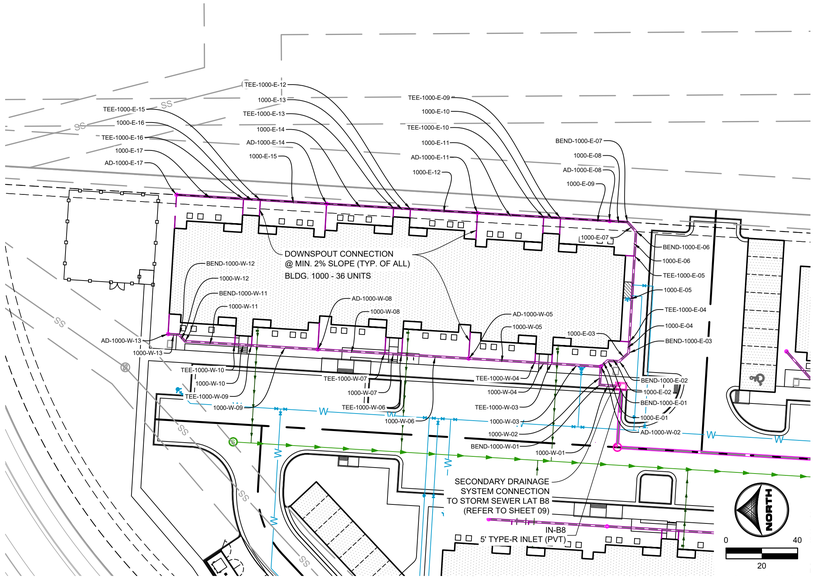
09

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-UTIL; 00-XC-UTIL; TB_24x36_2502477-CD; Storm Key Map

DOMBROWSKI, COLIN, 4/30/2026, 1:16 PM

HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



BLDG 1000
PRIVATE SECONDARY DRAINAGE SYSTEM

APARTMENT BUILDING 1000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

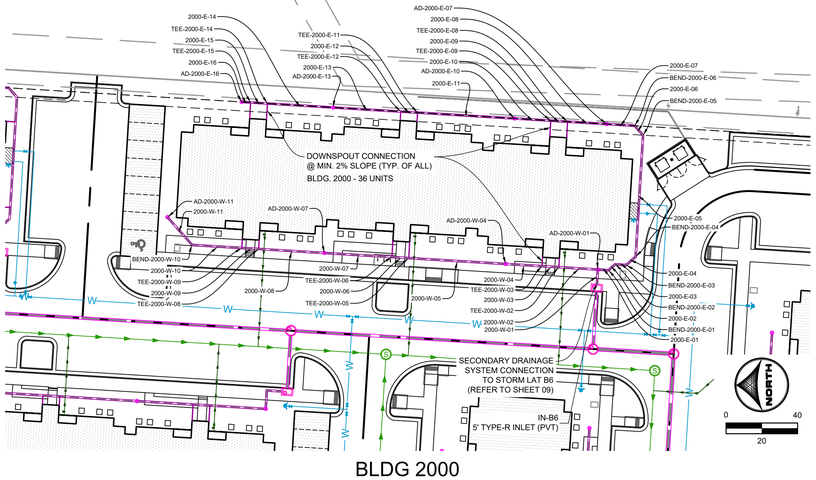
STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-1000-E-17 ADS 12" DOME GRATE INLET	12" RIM = 6300.84 SUMP = 6297.1 INV IN = 6298.14 INV OUT = 6297.64	Pipe - (100), 6" INV IN =6298.14	1000-E-17, 12" HDPE INV OUT =6297.64
AD-1000-W-08 ADS 12" DOME GRATE INLET	12" RIM = 6299.39 SUMP = 6295.9 INV IN = 6296.51 INV IN = 6297.01 INV OUT = 6296.41	1000-W-09, 12" HDPE INV IN =6296.51 Pipe - (116), 6" INV IN =6297.01	1000-W-08, 12" HDPE INV OUT =6296.41
AD-1000-E-14 ADS 12" DOME GRATE INLET	12" RIM = 6299.24 SUMP = 6296.2 INV IN = 6296.80 INV IN = 6297.30 INV OUT = 6296.70	1000-E-15, 12" HDPE INV IN =6296.80 Pipe - (103), 6" INV IN =6297.30	1000-E-14, 12" HDPE INV OUT =6296.70
AD-1000-W-05 ADS 12" DOME GRATE INLET	12" RIM = 6297.84 SUMP = 6294.1 INV IN = 6294.72 INV IN = 6295.22 INV OUT = 6294.62	1000-W-06, 12" HDPE INV IN =6294.72 Pipe - (113), 6" INV IN =6295.22	1000-W-05, 12" HDPE INV OUT =6294.62
AD-1000-E-11 ADS 12" DOME GRATE INLET	12" RIM = 6297.41 SUMP = 6295.3 INV IN = 6295.86 INV IN = 6296.36 INV OUT = 6295.76	1000-E-12, 12" HDPE INV IN =6295.86 Pipe - (106), 6" INV IN =6296.36	1000-E-11, 12" HDPE INV OUT =6295.76
AD-1000-E-08 ADS 12" DOME GRATE INLET	12" RIM = 6296.57 SUMP = 6294.6 INV IN = 6295.02 INV OUT = 6294.92	1000-E-09, 12" HDPE INV IN =6295.02	1000-E-08, 12" HDPE INV OUT =6294.92
AD-1000-W-02 ADS 12" DOME GRATE INLET	12" RIM = 6295.96 SUMP = 6293.3 INV IN = 6293.88 INV IN = 6293.88 INV OUT = 6293.78	1000-E-01, 12" HDPE INV IN =6293.88 1000-W-03, 12" HDPE INV IN =6293.88	1000-W-02, 12" HDPE INV OUT =6293.78
AD-1000-W-13 ADS 12" DOME GRATE INLET	12" RIM = 6300.51 SUMP = 6296.9 INV IN = 6297.86 INV OUT = 6297.36	Pipe - (119), 6" INV IN =6297.86	1000-W-13, 12" HDPE INV OUT =6297.36
IN-B8 5' TYPE-R INLET	RIM = 6297.44 SUMP = 6293.1 INV IN = 6293.59 INV OUT = 6293.09	1000-W-01, 12" HDPE INV IN =6293.59	Pipe - (61), 18" HDPE INV OUT =6293.09

SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
BEND-1000-W-11 45° HDPE BEND	INV = 6297.25	1000-W-12, 12" HDPE INV IN =6297.25	1000-W-11, 12" HDPE INV OUT =6297.25
TEE-1000-E-16 12" X 6" HDPE TEE	INV = 6297.26	1000-E-17, 12" HDPE INV IN =6297.26 Pipe - (101), 6" INV IN =6297.51	1000-E-16, 12" HDPE INV OUT =6297.26
TEE-1000-E-15 12" X 6" HDPE TEE	INV = 6297.17	1000-E-16, 12" HDPE INV IN =6297.17 Pipe - (102), 6" INV IN =6297.42	1000-E-15, 12" HDPE INV OUT =6297.17
TEE-1000-W-10 12" X 6" HDPE TEE	INV = 6296.97	1000-W-11, 12" HDPE INV IN =6296.98 Pipe - (118), 6" INV IN =6297.23	1000-W-10, 12" HDPE INV OUT =6296.97
TEE-1000-W-09 12" X 6" HDPE TEE	INV = 6296.88	1000-W-10, 12" HDPE INV IN =6296.88 Pipe - (117), 6" INV IN =6297.13	1000-W-09, 12" HDPE INV OUT =6296.88
TEE-1000-E-13 12" X 6" HDPE TEE	INV = 6296.33	1000-E-14, 12" HDPE INV IN =6296.33 Pipe - (104), 6" INV IN =6296.58	1000-E-13, 12" HDPE INV OUT =6296.33
TEE-1000-E-12 12" X 6" HDPE TEE	INV = 6296.24	1000-E-13, 12" HDPE INV IN =6296.24 Pipe - (105), 6" INV IN =6296.49	1000-E-12, 12" HDPE INV OUT =6296.24
TEE-1000-W-07 12" X 6" HDPE TEE	INV = 6295.66	1000-W-08, 12" HDPE INV IN =6295.66 Pipe - (115), 6" INV IN =6295.91	1000-W-07, 12" HDPE INV OUT =6295.66
TEE-1000-W-06 12" X 6" HDPE TEE	INV = 6295.47	1000-W-07, 12" HDPE INV IN =6295.47 Pipe - (114), 6" INV IN =6295.72	1000-W-06, 12" HDPE INV OUT =6295.47
TEE-1000-E-10 12" X 6" HDPE TEE	INV = 6295.39	1000-E-11, 12" HDPE INV IN =6295.39 Pipe - (107), 6" INV IN =6295.64	1000-E-10, 12" HDPE INV OUT =6295.39
TEE-1000-E-09 12" X 6" HDPE TEE	INV = 6295.30	1000-E-10, 12" HDPE INV IN =6295.30 Pipe - (108), 6" INV IN =6295.55	1000-E-09, 12" HDPE INV OUT =6295.30
BEND-1000-E-07 45° BEND	INV = 6294.82	1000-E-08, 12" HDPE INV IN =6294.82	1000-E-07, 12" HDPE INV OUT =6294.82
BEND-1000-E-06 45° BEND	INV = 6294.75	1000-E-07, 12" HDPE INV IN =6294.75	1000-E-06, 12" HDPE INV OUT =6294.75
TEE-1000-W-04 12" X 6" HDPE TEE	INV = 6294.25	1000-W-05, 12" HDPE INV IN =6294.25 Pipe - (112), 6" INV IN =6294.50	1000-W-04, 12" HDPE INV OUT =6294.25
TEE-1000-E-05 12" X 6" HDPE TEE	INV = 6294.61	1000-E-06, 12" HDPE INV IN =6294.61 Pipe - (109), 6" INV IN =6294.86	1000-E-05, 12" HDPE INV OUT =6294.61
TEE-1000-W-03 12" X 6" HDPE TEE	INV = 6294.16	1000-W-04, 12" HDPE INV IN =6294.16 Pipe - (111), 6" INV IN =6294.41	1000-W-03, 12" HDPE INV OUT =6294.16
TEE-1000-E-04 12" X 6" HDPE TEE	INV = 6294.13	1000-E-05, 12" HDPE INV IN =6294.13 Pipe - (110), 6" INV IN =6294.38	1000-E-04, 12" HDPE INV OUT =6294.13
BEND-1000-E-03 45° BEND	INV = 6294.07	1000-E-04, 12" HDPE INV IN =6294.07	1000-E-03, 12" HDPE INV OUT =6294.07
BEND-1000-E-02 45° BEND	INV = 6293.99	1000-E-03, 12" HDPE INV IN =6293.99	1000-E-02, 12" HDPE INV OUT =6293.99
BEND-1000-E-01 45° BEND	INV = 6293.93	1000-E-02, 12" HDPE INV IN =6293.93	1000-E-01, 12" HDPE INV OUT =6293.93
BEND-1000-W-12 45° HDPE BEND	INV = 6297.30	1000-W-13, 12" HDPE INV IN =6297.30	1000-W-12, 12" HDPE INV OUT =6297.30
BEND-1000-W-01 90° HDPE BEND	INV = 6293.68	1000-W-02, 12" HDPE INV IN =6293.68	1000-W-01, 12" HDPE INV OUT =6293.68

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
1000-E-17	12"	37.54'	1.00%	HDPE SDR-26
1000-E-14	12"	37.54'	1.00%	HDPE SDR-26
1000-E-11	12"	37.08'	1.00%	HDPE SDR-26
1000-E-08	12"	10.00	1.00%	HDPE SDR-26
1000-E-07	12"	7.07'	1.00%	HDPE SDR-26
1000-E-06	12"	13.75'	1.00%	HDPE SDR-26
1000-E-03	12"	7.07'	1.00%	HDPE SDR-26
1000-E-02	12"	6.50'	1.00%	HDPE SDR-26
1000-E-01	12"	4.97'	1.00%	HDPE SDR-26
1000-W-02	12"	10.33'	1.00%	HDPE SDR-26
1000-W-11	12"	27.83'	1.00%	HDPE SDR-26
1000-W-08	12"	37.54'	2.00%	HDPE SDR-26
1000-W-05	12"	37.08'	1.00%	HDPE SDR-26
1000-W-10	12"	9.42'	1.00%	HDPE SDR-26
1000-W-09	12"	37.08'	1.00%	HDPE SDR-26
1000-W-07	12"	9.42'	2.00%	HDPE SDR-26
1000-W-06	12"	37.54'	2.00%	HDPE SDR-26
1000-W-04	12"	9.42'	1.00%	HDPE SDR-26
1000-W-03	12"	27.51'	1.00%	HDPE SDR-26
1000-E-04	12"	6.25'	1.00%	HDPE SDR-26
1000-E-05	12"	48.00'	1.00%	HDPE SDR-26
1000-E-09	12"	27.54'	1.00%	HDPE SDR-26
1000-E-10	12"	9.42'	1.00%	HDPE SDR-26
1000-E-12	12"	37.54'	1.00%	HDPE SDR-26
1000-E-13	12"	9.42'	1.00%	HDPE SDR-26
1000-E-15	12"	37.08'	1.00%	HDPE SDR-26
1000-E-16	12"	9.42'	1.00%	HDPE SDR-26
1000-W-13	12"	6.21'	1.00%	HDPE SDR-26
1000-W-12	12"	4.95'	1.00%	HDPE SDR-26
1000-W-01	12"	8.77'	1.00%	HDPE SDR-26



BLDG 2000
PRIVATE SECONDARY DRAINAGE SYSTEM

APARTMENT BUILDING 2000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-2000-E-13 ADS 12" DOME GRATE INLET	12" RIM = 6296.80 SUMP = 6293.1 INV IN = 6293.17 INV OUT = 6293.07	2000-E-14, 12" HDPE INV IN =6293.17	2000-E-13, 12" HDPE INV OUT =6293.07
AD-2000-W-07 ADS 12" DOME GRATE INLET	12" RIM = 6296.79 SUMP = 6292.8 INV IN = 6293.44 INV OUT = 6293.34	2000-W-08, 12" HDPE INV IN =6293.44	2000-W-07, 12" HDPE INV OUT =6293.34
AD-2000-E-16 ADS 12" DOME GRATE INLET	12" RIM = 6297.75 SUMP = 6293.7 INV OUT = 6294.19		2000-E-16, 12" HDPE INV OUT =6294.19
AD-2000-E-10 ADS 12" DOME GRATE INLET	12" RIM = 6294.58 SUMP = 6291.4 INV IN = 6292.05 INV OUT = 6291.95	2000-E-11, 12" HDPE INV IN =6292.05	2000-E-10, 12" HDPE INV OUT =6291.95
AD-2000-E-07 ADS 12" DOME GRATE INLET	12" RIM = 6294.06 SUMP = 6290.9 INV IN = 6291.49 INV OUT = 6291.39	2000-E-08, 12" HDPE INV IN =6291.49	2000-E-07, 12" HDPE INV OUT =6291.39
AD-2000-W-04 ADS 12" DOME GRATE INLET	12" RIM = 6294.34 SUMP = 6290.7 INV IN = 6291.31 INV OUT = 6291.21	2000-W-05, 12" HDPE INV IN =6291.31	2000-W-04, 12" HDPE INV OUT =6291.21
AD-2000-W-01 ADS 12" DOME GRATE INLET	12" RIM = 6292.88 SUMP = 6290.2 INV IN = 6290.81 INV IN = 6290.81 INV OUT = 6290.71	2000-E-01, 12" HDPE INV IN =6290.81 2000-W-02, 12" HDPE INV IN =6290.81	2000-W-01, 12" HDPE INV OUT =6290.71
AD-2000-W-11 ADS 12" DOME GRATE INLET	12" RIM = 6297.88 SUMP = 6294.8 INV OUT = 6295.34		2000-W-11, 12" HDPE INV OUT =6295.34
IN-B6 5' TYPE-R INLET	RIM = 6294.74 SUMP = 6290.2 INV IN = 6290.67 INV OUT = 6290.17	2000-W-01, 12" HDPE INV IN =6290.67	Pipe - (60), 18" HDPE INV OUT =6290.17

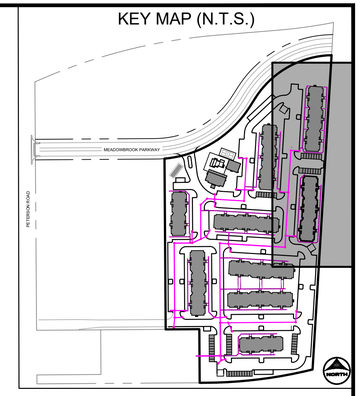
SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
TEE-2000-W-09 12" X 6" HDPE TEE	INV = 6294.37	2000-W-10, 12" HDPE INV IN =6294.37 Pipe - (84), 6" INV IN =6294.62	2000-W-09, 12" HDPE INV OUT =6294.37
TEE-2000-E-15 12" X 6" HDPE TEE	INV = 6294.09	2000-E-16, 12" HDPE INV IN =6294.09 Pipe - (78), 6" INV IN =6294.34	2000-E-15, 12" HDPE INV OUT =6294.09
BEND-2000-E-06 45° BEND	INV = 6291.31	2000-E-07, 12" HDPE INV IN =6291.31	2000-E-06, 12" HDPE INV OUT =6291.31
BEND-2000-E-05 45° BEND	INV = 6291.27	2000-E-06, 12" HDPE INV IN =6291.27	2000-E-05, 12" HDPE INV OUT =6291.27
BEND-2000-E-04 45° BEND	INV = 6290.93	2000-E-05, 12" HDPE INV IN =6290.93	2000-E-04, 12" HDPE INV OUT =6290.93
BEND-2000-E-01 45° BEND	INV = 6290.84	2000-E-02, 12" HDPE INV IN =6290.84	2000-E-01, 12" HDPE INV OUT =6290.84
BEND-2000-W-10 45° HDPE BEND	INV = 6294.92	2000-W-11, 12" HDPE INV IN =6294.92	2000-W-10, 12" HDPE INV OUT =6294.92
TEE-2000-E-08 12" X 6" HDPE TEE	INV = 6291.68	2000-E-09, 12" HDPE INV IN =6291.68 Pipe - (73), 6" INV IN =6291.90	2000-E-08, 12" HDPE INV OUT =6291.68
TEE-2000-W-03 12" X 6" HDPE TEE	INV = 6291.05	2000-W-04, 12" HDPE INV IN =6291.05 Pipe - (80), 6" INV IN =6291.06	2000-W-03, 12" HDPE INV OUT =6291.05
TEE-2000-W-02 12" X 6" HDPE TEE	INV = 6290.98	2000-W-03, 12" HDPE INV IN =6290.98 Pipe - (79), 6" INV IN =6290.87	2000-W-02, 12" HDPE INV OUT =6290.98
BEND-2000-E-03 45° BEND	INV = 6290.90	2000-E-04, 12" HDPE INV IN =6290.90	2000-E-03, 12" HDPE INV OUT =6290.90
BEND-2000-E-02 45° BEND	INV = 6290.87	2000-E-03, 12" HDPE INV IN =6290.87	2000-E-02, 12" HDPE INV OUT =6290.87
TEE-2000-W-08 12" X 6" HDPE TEE	INV = 6294.18	2000-W-09, 12" HDPE INV IN =6294.18 Pipe - (83), 6" INV IN =6294.43	2000-W-08, 12" HDPE INV OUT =6294.18
TEE-2000-E-14 12" X 6" HDPE TEE	INV = 6293.91	2000-E-15, 12" HDPE INV IN =6293.91 Pipe - (77), 6" INV IN =6294.16	2000-E-14, 12" HDPE INV OUT =6293.91
TEE-2000-E-12 12" X 6" HDPE TEE	INV = 6292.69	2000-E-13, 12" HDPE INV IN =6292.69 Pipe - (76), 6" INV IN =6292.94	2000-E-12, 12" HDPE INV OUT =6292.69
TEE-2000-E-11 12" X 6" HDPE TEE	INV = 6292.59	2000-E-12, 12" HDPE INV IN =6292.59 Pipe - (75), 6" INV IN =6292.84	2000-E-11, 12" HDPE INV OUT =6292.59
TEE-2000-W-06 12" X 6" HDPE TEE	INV = 6292.59	2000-W-07, 12" HDPE INV IN =6292.59 Pipe - (82), 6" INV IN =6292.84	2000-W-06, 12" HDPE INV OUT =6292.59
TEE-2000-W-05 12" X 6" HDPE TEE	INV = 6292.40	2000-W-06, 12" HDPE INV IN =6292.40 Pipe - (81), 6" INV IN =6292.65	2000-W-05, 12" HDPE INV OUT =6292.40
TEE-2000-E-09 12" X 6" HDPE TEE	INV = 6291.77	2000-E-10, 12" HDPE INV IN =6291.77 Pipe - (74), 6" INV IN =6291.99	2000-E-09, 12" HDPE INV OUT =6291.77

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
2000-E-16	12"	5.00'	2.00%	HDPE SDR-26
2000-E-10	12"	20.29'	0.88%	HDPE SDR-26
2000-E-07	12"	15.67'	0.50%	HDPE SDR-26
2000-E-06	12"	7.07'	0.50%	HDPE SDR-26
2000-E-05	12"	68.00'	0.50%	HDPE SDR-26
2000-E-04	12"	7.07'	0.50%	HDPE SDR-26
2000-E-01	12"	5.96'	0.50%	HDPE SDR-26
2000-W-01	12"	8.19'	0.50%	HDPE SDR-26
2000-W-10	12"	27.83'	2.00%	HDPE SDR-26
2000-W-04	12"	20.29'	0.78%	HDPE SDR-26
2000-E-02	12"	4.95'	0.50%	HDPE SDR-26
2000-E-03	12"	6.21'	0.50%	HDPE SDR-26
2000-W-07	12"	37.79'	2.00%	HDPE SDR-26
2000-E-13	12"	37.79'	1.00%	HDPE SDR-26
2000-W-09	12"	9.42'	2.00%	HDPE SDR-26
2000-W-08	12"	36.83'	2.00%	HDPE SDR-26
2000-W-06	12"	9.42'	2.00%	HDPE SDR-26
2000-W-05	12"	54.33'	2.00%	HDPE SDR-26
2000-W-03	12"	9.42'	0.78%	HDPE SDR-26
2000-W-02	12"	21.87'	0.78%	HDPE SDR-26
2000-E-15	12"	9.42'	2.00%	HDPE SDR-26
2000-E-14	12"	36.83'	2.00%	HDPE SDR-26
2000-E-12	12"	9.42'	1.00%	HDPE SDR-26
2000-E-11	12"	54.33'	1.00%	HDPE SDR-26
2000-E-09	12"	9.42'	0.88%	HDPE SDR-26
2000-E-08	12"	21.87'	0.88%	HDPE SDR-26
2000-W-11	12"	20.80'	2.00%	HDPE SDR-26

KEY MAP (N.T.S.)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.

SECONDARY DRAINAGE SYSTEM NOTES:

1. ALL SECONDARY DRAINAGE SYSTEM STORM SEWER INFRASTRUCTURE IS PRIVATE AND OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL DOWNSPOUT CONNECTION PIPES ARE 6" DIAMETER HDPE FROM THE DOWNSPOUT CONNECTION TO THE SECONDARY DRAINAGE SYSTEM SYSTEM MAIN LINE. SECONDARY DRAINAGE SYSTEM MAIN LINES ARE 12" DIAMETER HDPE, AND LANDSCAPE DRAINS ARE 12" DIAMETER ADS DRAIN BASINS WITH A 12" DOME GRATE. SECONDARY DRAINAGE SYSTEMS CONNECT EITHER TO PRIVATE HDPE STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR STORM MANHOLES.
3. ALL DOWNSPOUT CONNECTION PIPES ARE TO HAVE A MINIMUM SLOPE OF 2% FROM THE SECONDARY DRAINAGE SYSTEM MAIN LINE TO THE DOWNSPOUT CONNECTION LOCATION.
4. ALL ADS 12" DOME GRATE INLETS ARE TO HAVE A 6" SUMP PER MANUFACTURER SPECIFICATIONS.
5. A MINIMUM COVER OF 18" IS TO BE PROVIDED FOR THE SECONDARY DRAINAGE SYSTEM AT ALL LOCATIONS.

PCD FILE NO.: _____

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-UTIL; 00-XC-UTIL; TB_24x36_2502477-CD; Storm Key Map

DRAWN BY: CMD | JOB DATE: 4/30/2026
APPROVED: RDL | JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm RD

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
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PHONE: 719.300.4140
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
SECONDARY DRAINAGE SYSTEM PLAN I

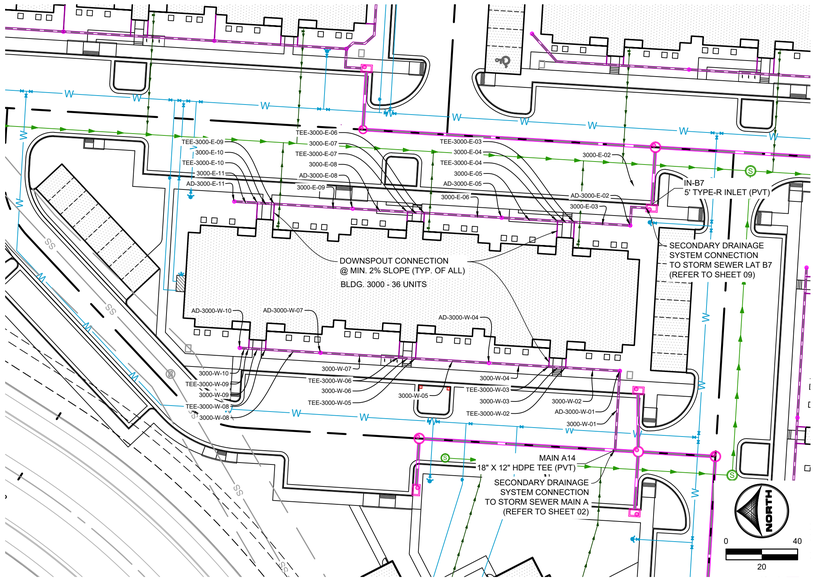
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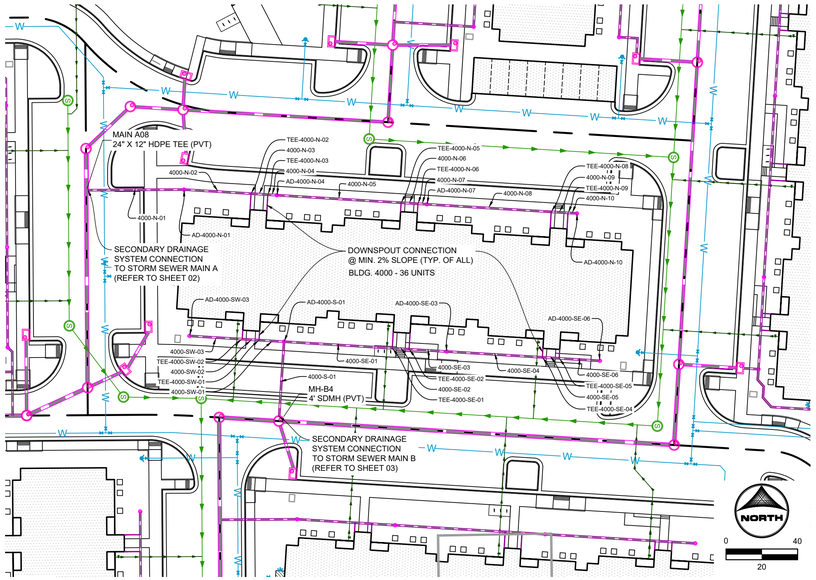
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



BLDG 3000
PRIVATE SECONDARY DRAINAGE SYSTEM



BLDG 4000
PRIVATE SECONDARY DRAINAGE SYSTEM

APARTMENT BUILDING 3000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-3000-E-02 ADS 12" DOME GRATE INLET	12" RIM = 6296.53 SUMP = 6291.4 INV IN = 6292.00 INV OUT = 6291.90	3000-E-03, 12" HDPE INV IN =6292.00	3000-E-02, 12" HDPE INV OUT =6291.90
AD-3000-E-11 ADS 12" DOME GRATE INLET	12" RIM = 6296.40 SUMP = 6293.9 INV OUT = 6294.40		3000-E-11, 12" HDPE INV OUT =6294.40
AD-3000-E-05 ADS 12" DOME GRATE INLET	12" RIM = 6296.33 SUMP = 6292.2 INV IN = 6292.81 INV OUT = 6292.71	3000-E-06, 12" HDPE INV IN =6292.81	3000-E-05, 12" HDPE INV OUT =6292.71
AD-3000-E-08 ADS 12" DOME GRATE INLET	12" RIM = 6296.30 SUMP = 6293.1 INV IN = 6293.74 INV OUT = 6293.64	3000-E-09, 12" HDPE INV IN =6293.74	3000-E-08, 12" HDPE INV OUT =6293.64
AD-3000-W-01 ADS 12" DOME GRATE INLET	12" RIM = 6296.55 SUMP = 6290.1 INV IN = 6290.68 INV OUT = 6290.58	3000-W-02, 12" HDPE INV IN =6290.68	3000-W-01, 12" HDPE INV OUT =6290.58
AD-3000-W-07 ADS 12" DOME GRATE INLET	12" RIM = 6296.44 SUMP = 6292.6 INV IN = 6293.22 INV OUT = 6293.12	3000-W-08, 12" HDPE INV IN =6293.22	3000-W-07, 12" HDPE INV OUT =6293.12
AD-3000-W-04 ADS 12" DOME GRATE INLET	12" RIM = 6296.40 SUMP = 6291.6 INV IN = 6292.18 INV OUT = 6292.08	3000-W-05, 12" HDPE INV IN =6292.18	3000-W-04, 12" HDPE INV OUT =6292.08
AD-3000-W-10 ADS 12" DOME GRATE INLET	12" RIM = 6296.32 SUMP = 6293.2 INV OUT = 6293.67		3000-W-10, 12" HDPE INV OUT =6293.67
IN-B7 5' TYPE-R INLET	RIM = 6295.80 SUMP = 6291.5 INV OUT = 6291.45		Pipe - (388), 18" HDPE INV OUT =6291.45

SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
TEE-3000-E-03 12" X 6" HDPE TEE	INV = 6292.31	3000-E-04, 12" HDPE INV IN =6292.31 Pipe - (173), 6" INV IN =6291.86	3000-E-03, 12" HDPE INV OUT =6292.31
TEE-3000-E-10 12" X 6" HDPE TEE	INV = 6294.27	3000-E-11, 12" HDPE INV IN =6294.27 Pipe - (156), 6" INV IN =6293.83	3000-E-10, 12" HDPE INV OUT =6294.27
TEE-3000-E-09 12" X 6" HDPE TEE	INV = 6294.18	3000-E-10, 12" HDPE INV IN =6294.18 Pipe - (169), 6" INV IN =6293.74	3000-E-09, 12" HDPE INV OUT =6294.18
TEE-3000-E-07 12" X 6" HDPE TEE	INV = 6293.33	3000-E-08, 12" HDPE INV IN =6293.33 Pipe - (170), 6" INV IN =6292.90	3000-E-07, 12" HDPE INV OUT =6293.33
TEE-3000-E-06 12" X 6" HDPE TEE	INV = 6293.24	3000-E-07, 12" HDPE INV IN =6293.24 Pipe - (171), 6" INV IN =6292.80	3000-E-06, 12" HDPE INV OUT =6293.24
TEE-3000-E-04 12" X 6" HDPE TEE	INV = 6292.40	3000-E-05, 12" HDPE INV IN =6292.40 Pipe - (172), 6" INV IN =6291.96	3000-E-04, 12" HDPE INV OUT =6292.40
TEE-3000-W-09 12" X 6" HDPE TEE	INV = 6293.62	3000-W-10, 12" HDPE INV IN =6293.62 Pipe - (184), 6" INV IN =6293.87	3000-W-09, 12" HDPE INV OUT =6293.62
TEE-3000-W-08 12" X 6" HDPE TEE	INV = 6293.53	3000-W-09, 12" HDPE INV IN =6293.53 Pipe - (185), 6" INV IN =6293.78	3000-W-08, 12" HDPE INV OUT =6293.53
TEE-3000-W-06 12" X 6" HDPE TEE	INV = 6292.69	3000-W-07, 12" HDPE INV IN =6292.69 Pipe - (186), 6" INV IN =6292.94	3000-W-06, 12" HDPE INV OUT =6292.69
TEE-3000-W-05 12" X 6" HDPE TEE	INV = 6292.59	3000-W-06, 12" HDPE INV IN =6292.59 Pipe - (187), 6" INV IN =6292.84	3000-W-05, 12" HDPE INV OUT =6292.59
TEE-3000-W-03 12" X 6" HDPE TEE	INV = 6291.44	3000-W-04, 12" HDPE INV IN =6291.44 Pipe - (188), 6" INV IN =6291.66	3000-W-03, 12" HDPE INV OUT =6291.44
TEE-3000-W-02 12" X 6" HDPE TEE	INV = 6291.26	3000-W-03, 12" HDPE INV IN =6291.26 Pipe - (189), 6" INV IN =6291.47	3000-W-02, 12" HDPE INV OUT =6291.26
MAIN A14 18" X 12" HDPE TEE	INV = 6289.89	Pipe - (44) (1), 18" HDPE INV IN =6289.89 3000-W-01, 12" HDPE INV IN =6290.14	Pipe - (44), 18" HDPE INV OUT =6289.89

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
3000-E-11	12"	13.00'	1.00%	HDPE SDR-26
3000-E-10	12"	9.42'	0.96%	HDPE SDR-26
3000-E-09	12"	43.89'	1.00%	HDPE SDR-26
3000-E-08	12"	30.74'	1.00%	HDPE SDR-26
3000-E-07	12"	9.42'	1.00%	HDPE SDR-26
3000-E-06	12"	43.28'	1.00%	HDPE SDR-26
3000-E-05	12"	31.34'	1.00%	HDPE SDR-26
3000-E-04	12"	9.42'	1.00%	HDPE SDR-26
3000-E-03	12"	31.26'	1.00%	HDPE SDR-26
3000-E-02	12"	44.50'	1.00%	HDPE SDR-26
3000-W-10	12"	5.00'	1.00%	HDPE SDR-26
3000-W-09	12"	9.42'	1.00%	HDPE SDR-26
3000-W-08	12"	30.84'	1.00%	HDPE SDR-26
3000-W-07	12"	43.78'	1.00%	HDPE SDR-26
3000-W-06	12"	9.42'	1.00%	HDPE SDR-26
3000-W-05	12"	41.12'	1.00%	HDPE SDR-26
3000-W-04	12"	33.51'	1.90%	HDPE SDR-26
3000-W-03	12"	9.42'	1.90%	HDPE SDR-26
3000-W-02	12"	30.37'	1.90%	HDPE SDR-26
3000-W-01	12"	44.50'	1.00%	HDPE SDR-26

APARTMENT BUILDING 4000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-4000-SE-06 ADS 12" DOME GRATE INLET	12" RIM = 6295.02 SUMP = 6291.3 INV OUT = 6291.77		4000-SE-06, 12" HDPE INV OUT =6291.77
AD-4000-N-10 ADS 12" DOME GRATE INLET	12" RIM = 6294.50 SUMP = 6290.5 INV OUT = 6290.98		4000-N-10, 12" HDPE INV OUT =6290.98
AD-4000-SE-03 ADS 12" DOME GRATE INLET	12" RIM = 6293.94 SUMP = 6289.5 INV IN = 6290.05 INV OUT = 6289.95	4000-SE-04, 12" HDPE INV IN =6290.05	4000-SE-03, 12" HDPE INV OUT =6289.95
AD-4000-N-07 ADS 12" DOME GRATE INLET	12" RIM = 6293.10 SUMP = 6288.7 INV IN = 6289.30 INV OUT = 6289.20	4000-N-08, 12" HDPE INV IN =6289.30	4000-N-07, 12" HDPE INV OUT =6289.20
AD-4000-S-01 ADS 12" DOME GRATE INLET	12" RIM = 6291.40 SUMP = 6287.3 INV IN = 6288.14 INV IN = 6288.14 INV OUT = 6287.84	4000-SE-01, 12" HDPE INV IN =6288.14 4000-SW-01, 12" HDPE INV IN =6288.14	4000-S-01, 12" HDPE INV OUT =6287.84
AD-4000-N-04 ADS 12" DOME GRATE INLET	12" RIM = 6291.33 SUMP = 6287.9 INV IN = 6288.36 INV OUT = 6288.36	4000-N-05, 12" HDPE INV IN =6288.36	4000-N-04, 12" HDPE INV OUT =6288.36
AD-4000-N-01 ADS 12" DOME GRATE INLET	12" RIM = 6291.20 SUMP = 6287.2 INV IN = 6287.84 INV OUT = 6287.74	4000-N-02, 12" HDPE INV IN =6287.84	4000-N-01, 12" HDPE INV OUT =6287.74
AD-4000-SW-03 ADS 12" DOME GRATE INLET	12" RIM = 6291.18 SUMP = 6288.2 INV OUT = 6288.67		4000-SW-03, 12" HDPE INV OUT =6288.67
MH-B4 SDMH	48" RIM = 6292.14 SUMP = 6286.6 INV IN = 6286.70 INV IN = 6286.95 INV IN = 6287.20 INV OUT = 6286.60	Pipe - (28) (1), 24" HDPE INV IN =6286.70 4000-S-01, 12" HDPE INV IN =6286.95 Pipe - (366), 18" HDPE INV IN =6287.20	Pipe - (28), 24" HDPE INV OUT =6286.60

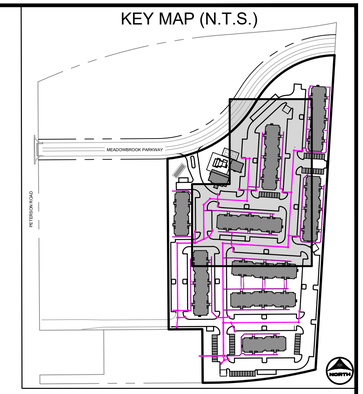
SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
TEE-4000-N-09 12" X 6" HDPE TEE	INV = 6290.88	4000-N-10, 12" HDPE INV IN =6290.88 Pipe - (314), 6" INV IN =6291.13	4000-N-09, 12" HDPE INV OUT =6290.88
TEE-4000-N-08 12" X 6" HDPE TEE	INV = 6290.69	4000-N-09, 12" HDPE INV IN =6290.69 Pipe - (315), 6" INV IN =6290.94	4000-N-08, 12" HDPE INV OUT =6290.69
TEE-4000-SE-05 12" X 6" HDPE TEE	INV = 6291.31	4000-SE-06, 12" HDPE INV IN =6291.31 Pipe - (325), 6" INV IN =6291.56	4000-SE-05, 12" HDPE INV OUT =6291.31
TEE-4000-SE-04 12" X 6" HDPE TEE	INV = 6291.12	4000-SE-05, 12" HDPE INV IN =6291.12 Pipe - (324), 6" INV IN =6291.37	4000-SE-04, 12" HDPE INV OUT =6291.12
TEE-4000-SE-02 12" X 6" HDPE TEE	INV = 6289.53	4000-SE-03, 12" HDPE INV IN =6289.53 Pipe - (323), 6" INV IN =6289.78	4000-SE-02, 12" HDPE INV OUT =6289.53
TEE-4000-SE-01 12" X 6" HDPE TEE	INV = 6289.34	4000-SE-02, 12" HDPE INV IN =6289.34 Pipe - (322), 6" INV IN =6289.59	4000-SE-01, 12" HDPE INV OUT =6289.34
TEE-4000-N-06 12" X 6" HDPE TEE	INV = 6289.15	4000-N-07, 12" HDPE INV IN =6289.15 Pipe - (316), 6" INV IN =6289.40	4000-N-06, 12" HDPE INV OUT =6289.15
TEE-4000-N-05 12" X 6" HDPE TEE	INV = 6289.06	4000-N-06, 12" HDPE INV IN =6289.06 Pipe - (317), 6" INV IN =6289.31	4000-N-05, 12" HDPE INV OUT =6289.06
MAIN A08 24" X 12" HDPE TEE	INV = 6287.04	Pipe - (39) (1), 24" HDPE INV IN =6287.04 4000-N-01, 12" HDPE INV IN =6287.19	Pipe - (39), 24" HDPE INV OUT =6287.04
TEE-4000-SW-02 12" X 6" HDPE TEE	INV = 6288.37	4000-SW-03, 12" HDPE INV IN =6288.37 Pipe - (320), 6" INV IN =6288.62	4000-SW-02, 12" HDPE INV OUT =6288.37
TEE-4000-N-03 12" X 6" HDPE TEE	INV = 6288.31	4000-N-04, 12" HDPE INV IN =6288.31 Pipe - (318), 6" INV IN =6288.56	4000-N-03, 12" HDPE INV OUT =6288.31
TEE-4000-SW-01 12" X 6" HDPE TEE	INV = 6288.28	4000-SW-02, 12" HDPE INV IN =6288.28 Pipe - (321), 6" INV IN =6288.53	4000-SW-01, 12" HDPE INV OUT =6288.28
TEE-4000-N-02 12" X 6" HDPE TEE	INV = 6288.22	4000-N-03, 12" HDPE INV IN =6288.22 Pipe - (319), 6" INV IN =6288.47	4000-N-02, 12" HDPE INV OUT =6288.22

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
4000-N-10	12"	5.00'	2.00%	HDPE SDR-26
4000-N-09	12"	9.42'	2.00%	HDPE SDR-26
4000-N-08	12"	69.63'	2.00%	HDPE SDR-26
4000-N-07	12"	5.00'	1.00%	HDPE SDR-26
4000-N-06	12"	9.42'	1.00%	HDPE SDR-26
4000-N-05	12"	69.62'	1.00%	HDPE SDR-26
4000-N-04	12"	5.00'	1.00%	HDPE SDR-26
4000-N-03	12"	9.42'	1.00%	HDPE SDR-26
4000-N-02	12"	37.54'	1.00%	HDPE SDR-26
4000-N-01	12"	54.64'	1.00%	HDPE SDR-26
4000-SE-06	12"	22.79'	2.00%	HDPE SDR-26
4000-SE-05	12"	9.42'	2.00%	HDPE SDR-26
4000-SE-04	12"	53.56'	2.00%	HDPE SDR-26
4000-SE-03	12"	21.07'	2.00%	HDPE SDR-26
4000-SE-02	12"	9.42'	2.00%	HDPE SDR-26
4000-SE-01	12"	60.63'	1.98%	HDPE SDR-26
4000-SW-01	12"	14.00'	1.00%	HDPE SDR-26
4000-SW-02	12"	9.42'	1.00%	HDPE SDR-26
4000-SW-03	12"	29.54'	1.00%	HDPE SDR-26
4000-S-01	12"	44.50'	2.00%	HDPE SDR-26

KEY MAP (N.T.S.)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.

SECONDARY DRAINAGE SYSTEM NOTES:

1. ALL SECONDARY DRAINAGE SYSTEM STORM SEWER INFRASTRUCTURE IS PRIVATE AND OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL DOWNSPOUT CONNECTION PIPES ARE 6" DIAMETER HDPE FROM THE DOWNSPOUT CONNECTION TO THE SECONDARY DRAINAGE SYSTEM MAIN LINE. SECONDARY DRAINAGE SYSTEM MAIN LINES ARE 12" DIAMETER HDPE, AND LANDSCAPE DRAINS ARE 12" DIAMETER ADS DRAIN BASINS WITH A 12" DOME GRATE. SECONDARY DRAINAGE SYSTEMS CONNECT EITHER TO PRIVATE HDPE STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR STORM MANHOLES.
3. ALL DOWNSPOUT CONNECTION PIPES ARE TO HAVE A MINIMUM SLOPE OF 2% FROM THE SECONDARY DRAINAGE SYSTEM MAIN LINE TO THE DOWNSPOUT CONNECTION LOCATION.
4. ALL ADS 12" DOME GRATE INLETS ARE TO HAVE A 6" SUMP PER MANUFACTURER SPECIFICATIONS.
5. A MINIMUM COVER OF 18" IS TO BE PROVIDED FOR THE SECONDARY DRAINAGE SYSTEM AT ALL LOCATIONS.

PCD FILE NO.: _____

DRAWN BY: CMD | JOB DATE: 4/30/2026
APPROVED: RDL | JOB NUMBER: 2502477
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BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
SECONDARY DRAINAGE SYSTEM PLAN II

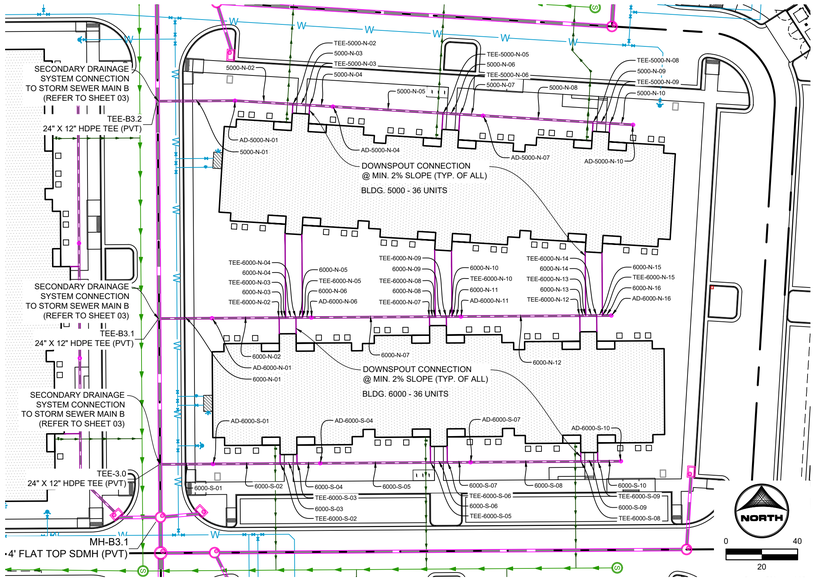
SHEET C.11

11

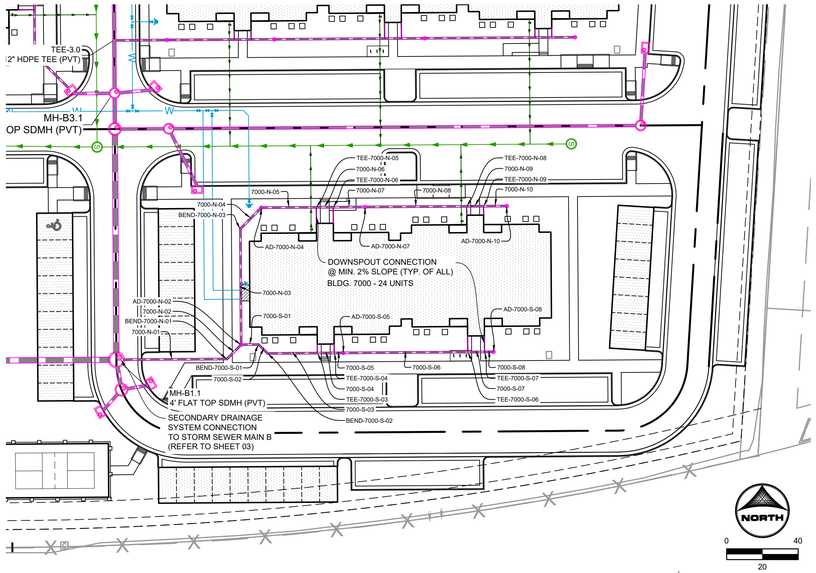
HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-UTIL; 00-XC-UTIL; TB_24x36_2502477-CD; Storm Key Map

HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



BLDG 5000 & BLDG 6000
PRIVATE SECONDARY DRAINAGE SYSTEM



BLDG 7000
PRIVATE SECONDARY DRAINAGE SYSTEM

APARTMENT BUILDING 5000 & BLDG 6000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-5000-N-04 ADS 12" DOME GRATE INLET	12" RIM = 6292.20 SUMP = 6287.7 INV IN = 6288.27 INV OUT = 6288.17	5000-N-05, 12" HDPE INV IN =6288.27	5000-N-04, 12" HDPE INV OUT =6288.17
AD-5000-N-01 ADS 12" DOME GRATE INLET	12" RIM = 6292.19 SUMP = 6287.0 INV IN = 6287.53 INV OUT = 6287.53	5000-N-02, 12" HDPE INV IN =6287.63	5000-N-01, 12" HDPE INV OUT =6287.53
AD-6000-S-10 ADS 12" DOME GRATE INLET	12" RIM = 6291.55 SUMP = 6288.4 INV OUT = 6288.94		6000-S-10, 12" HDPE INV OUT =6288.94
AD-6000-N-07 ADS 12" DOME GRATE INLET	12" RIM = 6291.53 SUMP = 6286.7 INV IN = 6287.26 INV OUT = 6287.16	6000-S-08, 12" HDPE INV IN =6287.26	6000-S-07, 12" HDPE INV OUT =6287.16
AD-5000-N-10 ADS 12" DOME GRATE INLET	12" RIM = 6295.87 SUMP = 6291.0 INV OUT = 6291.50		5000-N-10, 12" HDPE INV OUT =6291.50
AD-5000-N-07 ADS 12" DOME GRATE INLET	12" RIM = 6294.01 SUMP = 6289.2 INV IN = 6289.82 INV OUT = 6289.72	5000-N-08, 12" HDPE INV IN =6289.82	5000-N-07, 12" HDPE INV OUT =6289.72
AD-6000-N-16 ADS 12" DOME GRATE INLET	12" RIM = 6291.49 SUMP = 6288.0 INV OUT = 6288.46		6000-N-16, 12" HDPE INV OUT =6288.46
AD-6000-N-11 ADS 12" DOME GRATE INLET	12" RIM = 6290.92 SUMP = 6287.0 INV IN = 6287.62 INV OUT = 6287.52	6000-N-12, 12" HDPE INV IN =6287.62	6000-N-11, 12" HDPE INV OUT =6287.52
AD-6000-N-01 ADS 12" DOME GRATE INLET	12" RIM = 6288.67 SUMP = 6285.1 INV IN = 6285.67 INV OUT = 6285.57	6000-S-02, 12" HDPE INV IN =6285.67	6000-N-01, 12" HDPE INV OUT =6285.57
AD-6000-S-04 ADS 12" DOME GRATE INLET	12" RIM = 6288.64 SUMP = 6285.2 INV IN = 6285.85 INV OUT = 6285.75	6000-S-05, 12" HDPE INV IN =6285.85	6000-S-04, 12" HDPE INV OUT =6285.75
AD-6000-N-06 ADS 12" DOME GRATE INLET	12" RIM = 6288.51 SUMP = 6285.6 INV IN = 6286.19 INV OUT = 6286.09	6000-N-07, 12" HDPE INV IN =6286.19	6000-N-06, 12" HDPE INV OUT =6286.09
AD-6000-S-01 ADS 12" DOME GRATE INLET	12" RIM = 6288.17 SUMP = 6284.5 INV IN = 6285.15 INV OUT = 6285.05	6000-S-02, 12" HDPE INV IN =6285.15	6000-S-01, 12" HDPE INV OUT =6285.05

SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
TEE-5000-N-08 12" X 6" HDPE TEE	INV = 6291.05	5000-N-09, 12" HDPE INV IN =6291.05 Pipe - (346), 6" INV IN =6291.30	5000-N-08, 12" HDPE INV OUT =6291.05
TEE-5000-N-09 12" X 6" HDPE TEE	INV = 6291.24	5000-N-10, 12" HDPE INV IN =6291.24 Pipe - (347), 6" INV IN =6291.49	5000-N-09, 12" HDPE INV OUT =6291.24
TEE-5000-N-06 12" X 6" HDPE TEE	INV = 6289.50	5000-N-07, 12" HDPE INV IN =6289.50 Pipe - (343), 6" INV IN =6289.71	5000-N-06, 12" HDPE INV OUT =6289.50
TEE-5000-N-05 12" X 6" HDPE TEE	INV = 6289.33	5000-N-06, 12" HDPE INV IN =6289.33 Pipe - (344), 6" INV IN =6289.52	5000-N-05, 12" HDPE INV OUT =6289.33
TEE-5000-N-03 12" X 6" HDPE TEE	INV = 6288.04	5000-N-04, 12" HDPE INV IN =6288.04 Pipe - (343), 6" INV IN =6287.93	5000-N-03, 12" HDPE INV OUT =6288.04
TEE-5000-N-02 12" X 6" HDPE TEE	INV = 6287.95	5000-N-03, 12" HDPE INV IN =6287.95 Pipe - (342), 6" INV IN =6287.74	5000-N-02, 12" HDPE INV OUT =6287.95
TEE-6000-S-09 12" X 6" HDPE TEE	INV = 6288.68	6000-S-10, 12" HDPE INV IN =6288.68 Pipe - (353), 6" INV IN =6288.93	6000-S-09, 12" HDPE INV OUT =6288.68
TEE-6000-S-08 12" X 6" HDPE TEE	INV = 6288.49	6000-S-09, 12" HDPE INV IN =6288.49 Pipe - (352), 6" INV IN =6288.74	6000-S-08, 12" HDPE INV OUT =6288.49
TEE-6000-N-15 12" X 6" HDPE TEE	INV = 6288.41	6000-N-16, 12" HDPE INV IN =6288.41 Pipe - (359), 6" INV IN =6288.66	6000-N-15, 12" HDPE INV OUT =6288.41
TEE-6000-N-14 12" X 6" HDPE TEE	INV = 6288.38	6000-N-15, 12" HDPE INV IN =6288.38 Pipe - (360), 6" INV IN =6288.63	6000-N-14, 12" HDPE INV OUT =6288.38
TEE-6000-N-13 12" X 6" HDPE TEE	INV = 6288.32	6000-N-14, 12" HDPE INV IN =6288.32 Pipe - (358), 6" INV IN =6288.57	6000-N-13, 12" HDPE INV OUT =6288.32
TEE-6000-N-12 12" X 6" HDPE TEE	INV = 6288.28	6000-N-13, 12" HDPE INV IN =6288.28 Pipe - (361), 6" INV IN =6288.53	6000-N-12, 12" HDPE INV OUT =6288.28
TEE-6000-N-10 12" X 6" HDPE TEE	INV = 6287.44	6000-N-11, 12" HDPE INV IN =6287.44 Pipe - (357), 6" INV IN =6287.67	6000-N-10, 12" HDPE INV OUT =6287.44
TEE-6000-N-09 12" X 6" HDPE TEE	INV = 6287.39	6000-N-10, 12" HDPE INV IN =6287.39 Pipe - (362), 6" INV IN =6287.61	6000-N-09, 12" HDPE INV OUT =6287.39
TEE-6000-N-08 12" X 6" HDPE TEE	INV = 6287.29	6000-N-09, 12" HDPE INV IN =6287.29 Pipe - (356), 6" INV IN =6287.48	6000-N-08, 12" HDPE INV OUT =6287.29
TEE-6000-N-07 12" X 6" HDPE TEE	INV = 6287.24	6000-N-08, 12" HDPE INV IN =6287.24 Pipe - (363), 6" INV IN =6287.42	6000-N-07, 12" HDPE INV OUT =6287.24
TEE-B3.2 24" X 12" HDPE TEE	INV = 6285.73	Pipe - (27) (1), 24" HDPE INV IN =6285.73 5000-N-01, 12" HDPE INV IN =6286.23	Pipe - (27), 24" HDPE INV OUT =6285.73
TEE-6000-S-06 12" X 6" HDPE TEE	INV = 6286.96	6000-S-07, 12" HDPE INV IN =6286.96 Pipe - (351), 6" INV IN =6287.15	6000-S-06, 12" HDPE INV OUT =6286.96
TEE-B3.1 24" X 12" HDPE TEE	INV = 6284.85	Pipe - (27), 24" HDPE INV IN =6284.85 6000-N-01, 12" HDPE INV IN =6285.35	Pipe - (26) (1) (2), 24" HDPE INV OUT =6284.85
TEE-6000-S-03 12" X 6" HDPE TEE	INV = 6285.62	6000-S-04, 12" HDPE INV IN =6285.62 Pipe - (365), 6" INV IN =6285.50	6000-S-03, 12" HDPE INV OUT =6285.62
TEE-6000-S-02 12" X 6" HDPE TEE	INV = 6285.53	6000-S-03, 12" HDPE INV IN =6285.53 Pipe - (348), 6" INV IN =6285.41	6000-S-02, 12" HDPE INV OUT =6285.53
TEE-6000-S-05 12" X 6" HDPE TEE	INV = 6286.81	6000-S-06, 12" HDPE INV IN =6286.81 Pipe - (350), 6" INV IN =6286.96	6000-S-05, 12" HDPE INV OUT =6286.81
TEE-6000-N-05 12" X 6" HDPE TEE	INV = 6286.05	6000-N-06, 12" HDPE INV IN =6286.05 Pipe - (355), 6" INV IN =6285.95	6000-N-05, 12" HDPE INV OUT =6286.05
TEE-6000-N-04 12" X 6" HDPE TEE	INV = 6286.02	6000-N-05, 12" HDPE INV IN =6286.02 Pipe - (364), 6" INV IN =6285.91	6000-N-04, 12" HDPE INV OUT =6286.02
TEE-6000-N-03 12" X 6" HDPE TEE	INV = 6285.98	6000-N-04, 12" HDPE INV IN =6285.98 Pipe - (354), 6" INV IN =6285.85	6000-N-03, 12" HDPE INV OUT =6285.98
TEE-6000-N-02 12" X 6" HDPE TEE	INV = 6285.95	6000-N-03, 12" HDPE INV IN =6285.95 Pipe - (365), 6" INV IN =6285.82	6000-N-02, 12" HDPE INV OUT =6285.95
TEE-3.0 24" X 12" HDPE TEE	INV = 6284.25	Pipe - (26) (1) (2), 24" HDPE INV IN =6284.25 6000-S-01, 12" HDPE INV IN =6284.75	Pipe - (392), 24" HDPE INV OUT =6284.25

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
5000-N-10	12"	13.00'	1.00%	HDPE SDR-26
5000-N-09	12"	9.42'	2.00%	HDPE SDR-26
5000-N-08	12"	61.62'	2.00%	HDPE SDR-26
5000-N-07	12"	13.00'	1.73%	HDPE SDR-26
5000-N-06	12"	9.42'	1.73%	HDPE SDR-26
5000-N-05	12"	61.62'	1.73%	HDPE SDR-26
5000-N-04	12"	13.00'	1.00%	HDPE SDR-26
5000-N-03	12"	9.42'	1.00%	HDPE SDR-26
5000-N-02	12"	32.45'	1.00%	HDPE SDR-26
5000-N-01	12"	43.19'	3.00%	HDPE SDR-26
6000-N-16	12"	5.00'	1.00%	HDPE SDR-26
6000-N-15	12"	3.21'	1.00%	HDPE SDR-26
6000-N-14	12"	6.18'	1.00%	HDPE SDR-26
6000-N-13	12"	3.24'	1.00%	HDPE SDR-26
6000-N-12	12"	66.49'	1.00%	HDPE SDR-26
6000-N-11	12"	5.00'	1.59%	HDPE SDR-26
6000-N-10	12"	3.14'	1.59%	HDPE SDR-26
6000-N-09	12"	6.26'	1.59%	HDPE SDR-26
6000-N-08	12"	3.16'	1.59%	HDPE SDR-26
6000-N-07	12"	66.03'	1.59%	HDPE SDR-26
6000-N-06	12"	5.00'	0.75%	HDPE SDR-26
6000-N-05	12"	3.60'	0.75%	HDPE SDR-26
6000-N-04	12"	5.80'	0.75%	HDPE SDR-26
6000-N-03	12"	3.62'	0.75%	HDPE SDR-26
6000-N-02	12"	37.54'	0.75%	HDPE SDR-26
6000-N-01	12"	29.53'	0.74%	HDPE SDR-26
6000-S-10	12"	13.00'	2.00%	HDPE SDR-26
6000-S-09	12"	9.42'	2.00%	HDPE SDR-26
6000-S-08	12"	61.62'	2.00%	HDPE SDR-26
6000-S-07	12"	13.00'	1.56%	HDPE SDR-26
6000-S-06	12"	9.42'	1.56%	HDPE SDR-26
6000-S-05	12"	61.62'	1.56%	HDPE SDR-26
6000-S-04	12"	13.00'	0.97%	HDPE SDR-26
6000-S-03	12"	9.42'	1.00%	HDPE SDR-26
6000-S-02	12"	37.54'	1.00%	HDPE SDR-26
6000-S-01	12"	29.53'	1.00%	HDPE SDR-26

APARTMENT BUILDING 7000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-7000-N-02 ADS 12" DOME GRATE INLET	12" RIM = 6289.66 SUMP = 6284.2 INV IN = 6284.83 INV IN = 6284.83 INV OUT = 6284.73	7000-N-03, 12" HDPE INV IN =6284.83 7000-S-01, 12" HDPE INV IN =6284.83	7000-N-02, 12" HDPE INV OUT =6284.73
AD-7000-N-07 ADS 12" DOME GRATE INLET	12" RIM = 6289.70 SUMP = 6285.8 INV IN = 6286.42 INV OUT = 6286.32	7000-N-08, 12" HDPE INV IN =6286.42	7000-N-07, 12" HDPE INV OUT =6286.32
AD-7000-N-10 ADS 12" DOME GRATE INLET	12" RIM = 6289.43 SUMP = 6286.7 INV OUT = 6287.21		7000-N-10, 12" HDPE INV OUT =6287.21
AD-7000-N-04 ADS 12" DOME GRATE INLET	12" RIM = 6289.36 SUMP = 6285.1 INV IN = 6285.74 INV OUT = 6285.64	7000-N-05, 12" HDPE INV IN =6285.74	7000-N-04, 12" HDPE INV OUT =6285.64
AD-7000-S-05 ADS 12" DOME GRATE INLET	12" RIM = 6290.42 SUMP = 6285.5 INV IN = 6286.01 INV OUT = 6286.01	7000-S-06, 12" HDPE INV IN =6286.01	7000-S-05, 12" HDPE INV OUT =6286.01
AD-7000-S-08 ADS 12" DOME GRATE INLET	12" RIM = 6290.27 SUMP = 6286.4 INV OUT = 6286.85		7000-S-08, 12" HDPE INV OUT =6286.85

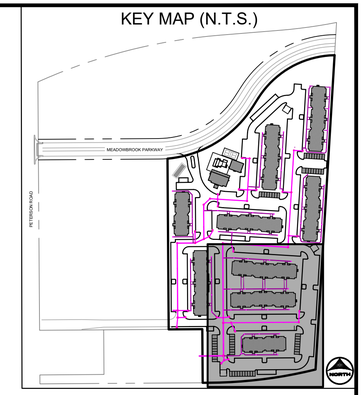
SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
BEND-7000-N-01 45° HDPE BEND	INV = 6284.62	7000-N-02, 12" HDPE INV IN =6284.62	7000-N-01, 12" HDPE INV OUT =6284.62
BEND-7000-N-03 45° HDPE BEND	INV = 6285.48	7000-N-04, 12" HDPE INV IN =6285.48	7000-N-03, 12" HDPE INV OUT =6285.48
TEE-7000-N-09 12" X 6" HDPE TEE	INV = 6287.08	7000-N-10, 12" HDPE INV IN =6287.08 Pipe - (369), 6" INV IN =6287.33	7000-N-09, 12" HDPE INV OUT =6287.08
TEE-7000-N-08 12" X 6" HDPE TEE	INV = 6286.99	7000-N-09, 12" HDPE INV IN =6286.99 Pipe - (368), 6" INV IN =6287.24	7000-N-08, 12" HDPE INV OUT =6286.99
BEND-7000-S-02 45° HDPE BEND	INV = 6285.17	7000-S-03, 12" HDPE INV IN =6285.17	7000-S-02, 12" HDPE INV OUT =6285.17
BEND-7000-S-01 45° HDPE BEND	INV = 6285.02	7000-S-02, 12" HDPE INV IN =6285.02	7000-S-01, 12" HDPE INV OUT =6285.02
TEE-7000-S-07 12" X 6" HDPE TEE	INV = 6286.80	7000-S-08, 12" HDPE INV IN =6286.80 Pipe - (370), 6" INV IN =6287.05	7000-S-07, 12" HDPE INV OUT =6286.80
TEE-7000-S-06 12" X 6" HDPE TEE	INV = 6286.71	7000-S-07, 12" HDPE INV IN =6286.71 Pipe - (371), 6" INV IN =6286.96	7000-S-06, 12" HDPE INV OUT =6286.71
TEE-7000-N-06 12" X 6" HDPE TEE	INV = 6286.14	7000-N-07, 12" HDPE INV IN =6286.14 Pipe - (367), 6" INV IN =6286.39	7000-N-06, 12" HDPE INV OUT =6286.14
TEE-7000-N-05 12" X 6" HDPE TEE	INV = 6286.05	7000-N-06, 12" HDPE INV IN =6286.05 Pipe - (366), 6" INV IN =6286.30	7000-N-05, 12" HDPE INV OUT =6286.05
TEE-7000-S-04 12" X 6" HDPE TEE	INV = 6285.91	7000-S-05, 12" HDPE INV IN =6285.91 Pipe - (372), 6" INV IN =6286.16	7000-S-04, 12" HDPE INV OUT =6285.91
TEE-7000-S-03 12" X 6" HDPE TEE	INV = 6285.72	7000-S-04, 12" HDPE INV IN =6285.72 Pipe - (373), 6" INV IN =6285.97	7000-S-03, 12" HDPE INV OUT =6285.72

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
7000-N-10	12"	13.00'	1.00%	HDPE SDR-26
7000-N-09	12"	9.42'	1.00%	HDPE SDR-26
7000-N-08	12"	56.83'	1.00%	HDPE SDR-26
7000-N-07	12"	17.79'	1.00%	HDPE SDR-26
7000-N-06	12"	9.42'	1.00%	HDPE SDR-26
7000-N-05	12"	30.76'	1.00%	HDPE SDR-26
7000-N-04	12"	16.66'	1.00%	HDPE SDR-26
7000-N-03	12"	64.72'	1.00%	HDPE SDR-26
7000-N-02	12"	11.27'	1.00%	HDPE SDR-26
7000-N-01	12"	61.82'	1.00%	HDPE SDR-26
7000-S-08	12"	5.00'	1.00%	HDPE SDR-26
7000-S-07	12"	9.42'	1.00%	HDPE SDR-26
7000-S-06	12"	69.63'	1.00%	HDPE SDR-26
7000-S-05	12"	5.00'	2.00%	HDPE SDR-26
7000-S-04	12"	9.42'	2.00%	HDPE SDR-26
7000-S-03	12"	27.83'	2.00%	HDPE SDR-26
7000-S-02	12"	7.07'	2.00%	HDPE SDR-26
7000-S-01	12"	9.71'	2.00%	HDPE SDR-26

KEY MAP (N.T.S.)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.

SECONDARY DRAINAGE SYSTEM NOTES:

1. ALL SECONDARY DRAINAGE SYSTEM STORM SEWER INFRASTRUCTURE IS PRIVATE AND OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL DOWNSPOUT CONNECTION PIPES ARE 6" DIAMETER HDPE FROM THE DOWNSPOUT CONNECTION TO THE SECONDARY DRAINAGE SYSTEM SYSTEM MAIN LINE. SECONDARY DRAINAGE SYSTEM MAIN LINES ARE 12" DIAMETER HDPE, AND LANDSCAPE DRAINS ARE 12" DIAMETER ADS DRAIN BASINS WITH A 12" DOME GRATE. SECONDARY DRAINAGE SYSTEMS CONNECT EITHER TO PRIVATE HDPE STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR STORM MANHOLES.
3. ALL DOWNSPOUT CONNECTION PIPES ARE TO HAVE A MINIMUM SLOPE OF 2% FROM THE SECONDARY DRAINAGE SYSTEM MAIN LINE TO THE DOWNSPOUT CONNECTION LOCATION.
4. ALL ADS 12" DOME GRATE INLETS ARE TO HAVE A 6" SUMP PER MANUFACTURER SPECIFICATIONS.
5. A MINIMUM COVER OF 18" IS TO BE PROVIDED FOR THE SECONDARY DRAINAGE SYSTEM AT ALL LOCATIONS.

PCD FILE NO.: _____

DRAWN BY: CMD JOB DATE: 4/30/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
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BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
SECONDARY DRAINAGE SYSTEM PLAN III

SHEET C.12

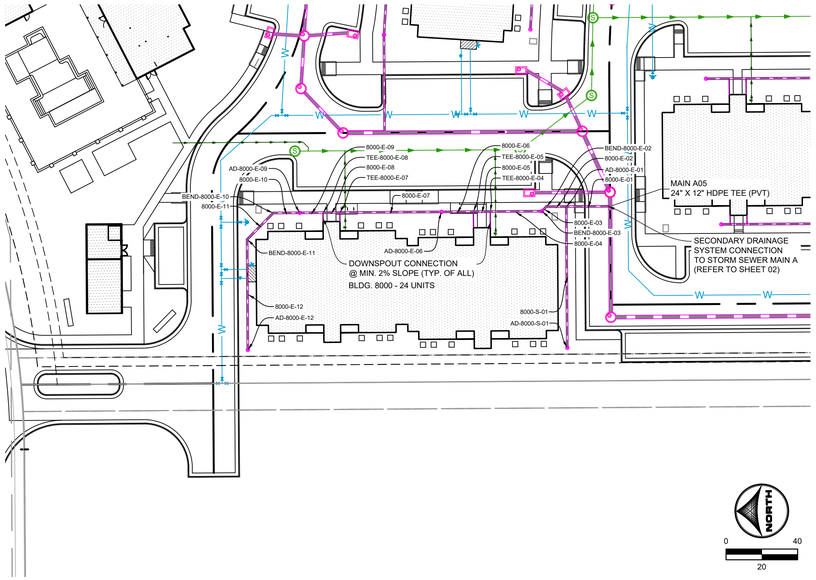
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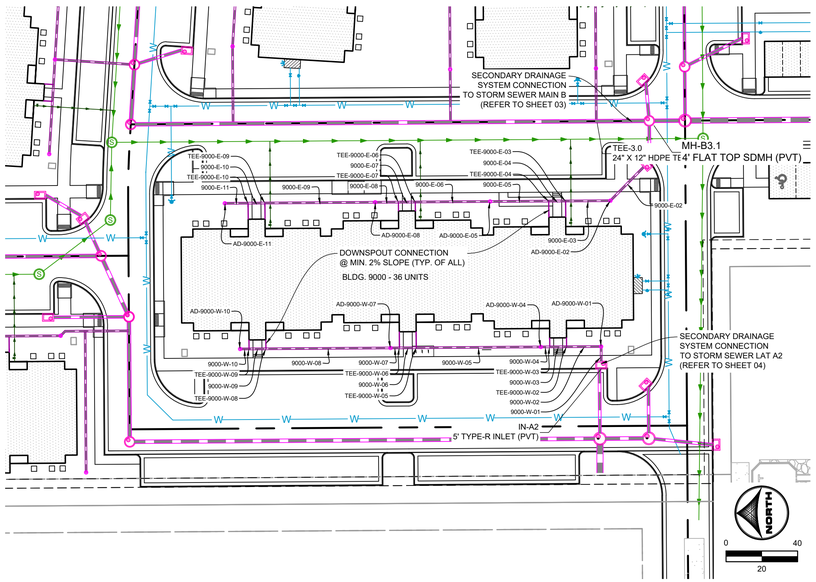
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



BLDG 8000
PRIVATE SECONDARY DRAINAGE SYSTEM



BLDG 9000
PRIVATE SECONDARY DRAINAGE SYSTEM

APARTMENT BUILDING 8000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
BEND-8000-E-03 ADS 12" DOME GRATE INLET	12" RIM = 6292.23 SUMP = 6286.2 INV IN = 6286.88 INV OUT = 6286.68	8000-E-04, 12" HDPE INV IN =6286.88	8000-E-03, 12" HDPE INV OUT =6286.68
AD-8000-E-09 ADS 12" DOME GRATE INLET	12" RIM = 6292.17 SUMP = 6287.8 INV IN = 6288.43 INV OUT = 6288.33	8000-E-10, 12" HDPE INV IN =6288.43	8000-E-09, 12" HDPE INV OUT =6288.33
AD-8000-E-06 ADS 12" DOME GRATE INLET	12" RIM = 6292.08 SUMP = 6286.9 INV IN = 6287.54 INV OUT = 6287.44	8000-E-07, 12" HDPE INV IN =6287.54	8000-E-06, 12" HDPE INV OUT =6287.44
AD-8000-E-12 ADS 12" DOME GRATE INLET	12" RIM = 6291.59 SUMP = 6288.9 INV OUT = 6289.40		8000-E-12, 12" HDPE INV OUT =6289.40
AD-8000-S-01 ADS 12" DOME GRATE INLET	12" RIM = 6291.56 SUMP = 6287.6 INV OUT = 6288.11		8000-S-01, 12" HDPE INV OUT =6288.11

SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
TEE-8000-E-07 12" X 6" HDPE TEE	INV = 6288.11	8000-E-08, 12" HDPE INV IN =6288.11 Pipe - (328), 6" INV IN =6288.36	8000-E-07, 12" HDPE INV OUT =6288.11
BEND-8000-E-11 45° HDPE BEND	INV = 6288.79	8000-E-12, 12" HDPE INV IN =6288.79	8000-E-11, 12" HDPE INV OUT =6288.79
BEND-8000-E-10 45° HDPE BEND	INV = 6288.58	8000-E-11, 12" HDPE INV IN =6288.58	8000-E-10, 12" HDPE INV OUT =6288.58
TEE-8000-E-08 12" X 6" HDPE TEE	INV = 6288.20	8000-E-09, 12" HDPE INV IN =6288.20 Pipe - (329), 6" INV IN =6288.45	8000-E-08, 12" HDPE INV OUT =6288.20
TEE-8000-E-05 12" X 6" HDPE TEE	INV = 6287.26	8000-E-06, 12" HDPE INV IN =6287.26 Pipe - (327), 6" INV IN =6287.51	8000-E-05, 12" HDPE INV OUT =6287.26
TEE-8000-E-04 12" X 6" HDPE TEE	INV = 6287.17	8000-E-05, 12" HDPE INV IN =6287.17 Pipe - (326), 6" INV IN =6287.42	8000-E-04, 12" HDPE INV OUT =6287.17
MAIN A05 24" X 12" HDPE TEE	INV = 6285.96	Pipe - (37) (1), 24" HDPE INV IN =6285.96 8000-E-01, 12" HDPE INV IN =6286.29	Pipe - (37), 24" HDPE INV OUT =6285.96
BEND-8000-E-02 45° HDPE BEND	INV = 6286.65	8000-E-03, 12" HDPE INV IN =6286.65	8000-E-02, 12" HDPE INV OUT =6286.65
AD-8000-E-01 12" X 12" HDPE TEE	INV = 6286.53	8000-S-01, 12" HDPE INV IN =6286.53 8000-E-02, 12" HDPE INV IN =6286.53	8000-E-01, 12" HDPE INV OUT =6286.53

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
8000-E-12	12"	61.78'	1.00%	HDPE SDR-26
8000-E-11	12"	20.82'	1.00%	HDPE SDR-26
8000-E-10	12"	14.82'	1.00%	HDPE SDR-26
8000-E-09	12"	13.00'	1.00%	HDPE SDR-26
8000-E-08	12"	9.42'	1.00%	HDPE SDR-26
8000-E-07	12"	56.83'	1.00%	HDPE SDR-26
8000-E-06	12"	17.79'	1.00%	HDPE SDR-26
8000-E-05	12"	9.42'	1.00%	HDPE SDR-26
8000-E-04	12"	28.83'	1.00%	HDPE SDR-26
8000-S-01	12"	79.01'	2.00%	HDPE SDR-26
8000-E-03	12"	3.54'	1.00%	HDPE SDR-26
8000-E-02	12"	11.20'	1.00%	HDPE SDR-26
8000-E-01	12"	24.50'	1.00%	HDPE SDR-26

APARTMENT BUILDING 9000 SECONDARY DRAINAGE SYSTEM INFORMATION:

SECONDARY DRAINAGE STRUCTURES TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
AD-9000-E-11 ADS 12" DOME GRATE INLET	12" RIM = 6290.86 SUMP = 6287.4 INV OUT = 6287.85		9000-E-11, 12" HDPE INV OUT =6287.85
AD-9000-E-05 ADS 12" DOME GRATE INLET	RIM = 6289.70 SUMP = 6285.7 INV IN = 6286.27 INV OUT = 6286.17	9000-E-06, 12" HDPE INV IN =6286.27	9000-E-05, 12" HDPE INV OUT =6286.17
AD-9000-E-02 ADS 12" DOME GRATE INLET	RIM = 6289.20 SUMP = 6284.8 INV IN = 6285.50 INV OUT = 6285.34	9000-E-03, 12" HDPE INV IN =6285.50	9000-E-02, 12" HDPE INV OUT =6285.34
AD-9000-W-04 ADS 12" DOME GRATE INLET	RIM = 6289.41 SUMP = 6285.1 INV IN = 6285.67 INV OUT = 6285.57	9000-W-05, 12" HDPE INV IN =6285.67	9000-W-04, 12" HDPE INV OUT =6285.57
AD-9000-W-01 ADS 12" DOME GRATE INLET	RIM = 6289.27 SUMP = 6284.6 INV IN = 6285.26 INV OUT = 6285.09	9000-W-02, 12" HDPE INV IN =6285.26	9000-W-01, 12" HDPE INV OUT =6285.09
AD-9000-E-08 ADS 12" DOME GRATE INLET	RIM = 6290.27 SUMP = 6286.4 INV IN = 6287.01 INV OUT = 6286.91	9000-E-09, 12" HDPE INV IN =6287.01	9000-E-08, 12" HDPE INV OUT =6286.91
AD-9000-W-10 ADS 12" DOME GRATE INLET	RIM = 6290.06 SUMP = 6287.0 INV OUT = 6287.45		9000-W-10, 12" HDPE INV OUT =6287.45
AD-9000-W-07 ADS 12" DOME GRATE INLET	12" RIM = 6289.75 SUMP = 6286.0 INV IN = 6286.61 INV OUT = 6286.51	9000-W-08, 12" HDPE INV IN =6286.61	9000-W-07, 12" HDPE INV OUT =6286.51
IN-A2 5' TYPE-R INLET	RIM = 6288.65 SUMP = 6284.7 INV IN = 6284.96 INV OUT = 6284.74	9000-W-01, 12" HDPE INV IN =6284.96	Pipe - (51), 18" HDPE INV OUT =6284.74

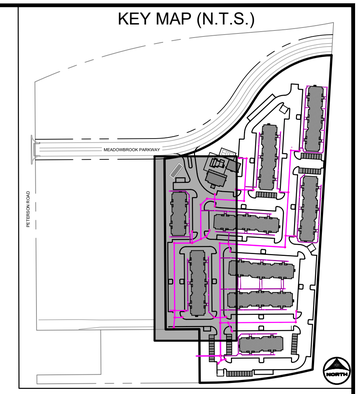
SECONDARY DRAINAGE FITTINGS TABLE

STRUCTURE NAME & DESCRIPTION:	DETAILS:	PIPES IN:	PIPES OUT
TEE-9000-E-10 12" X 6" HDPE TEE	INV = 6287.72	9000-E-11, 12" HDPE INV IN =6287.72 Pipe - (341), 6" INV IN =6287.97	9000-E-10, 12" HDPE INV OUT =6287.72
TEE-9000-E-09 12" X 6" HDPE TEE	INV = 6287.63	9000-E-10, 12" HDPE INV IN =6287.63 Pipe - (340), 6" INV IN =6287.88	9000-E-09, 12" HDPE INV OUT =6287.63
TEE-9000-W-09 12" X 6" HDPE TEE	INV = 6287.40	9000-W-10, 12" HDPE INV IN =6287.40 Pipe - (330), 6" INV IN =6287.65	9000-W-09, 12" HDPE INV OUT =6287.40
TEE-9000-W-08 12" X 6" HDPE TEE	INV = 6287.31	9000-W-09, 12" HDPE INV IN =6287.31 Pipe - (331), 6" INV IN =6287.56	9000-W-08, 12" HDPE INV OUT =6287.31
TEE-9000-W-02 12" X 6" HDPE TEE	INV = 6285.43	9000-W-03, 12" HDPE INV IN =6285.43 Pipe - (335), 6" INV IN =6285.68	9000-W-02, 12" HDPE INV OUT =6285.43
TEE-9000-E-07 12" X 6" HDPE TEE	INV = 6286.78	9000-E-08, 12" HDPE INV IN =6286.78 Pipe - (339), 6" INV IN =6287.03	9000-E-07, 12" HDPE INV OUT =6286.78
TEE-9000-E-06 12" X 6" HDPE TEE	INV = 6286.69	9000-E-07, 12" HDPE INV IN =6286.69 Pipe - (338), 6" INV IN =6286.94	9000-E-06, 12" HDPE INV OUT =6286.69
TEE-9000-W-06 12" X 6" HDPE TEE	INV = 6286.46	9000-W-07, 12" HDPE INV IN =6286.46 Pipe - (332), 6" INV IN =6286.71	9000-W-06, 12" HDPE INV OUT =6286.46
TEE-9000-W-05 12" X 6" HDPE TEE	INV = 6286.37	9000-W-06, 12" HDPE INV IN =6286.37 Pipe - (333), 6" INV IN =6286.62	9000-W-05, 12" HDPE INV OUT =6286.37
TEE-9000-E-04 12" X 6" HDPE TEE	INV = 6285.84	9000-E-05, 12" HDPE INV IN =6285.84 Pipe - (337), 6" INV IN =6286.09	9000-E-04, 12" HDPE INV OUT =6285.84
TEE-9000-E-03 12" X 6" HDPE TEE	INV = 6285.75	9000-E-04, 12" HDPE INV IN =6285.75 Pipe - (336), 6" INV IN =6286.00	9000-E-03, 12" HDPE INV OUT =6285.75
TEE-9000-W-03 12" X 6" HDPE TEE	INV = 6285.52	9000-W-04, 12" HDPE INV IN =6285.52 Pipe - (334), 6" INV IN =6285.77	9000-W-03, 12" HDPE INV OUT =6285.52

SECONDARY DRAINAGE SYSTEM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
9000-W-10	12"	5.00'	1.00%	HDPE SDR-26
9000-W-09	12"	9.42'	1.00%	HDPE SDR-26
9000-W-08	12"	69.63'	1.00%	HDPE SDR-26
9000-W-07	12"	5.00'	1.00%	HDPE SDR-26
9000-W-06	12"	9.42'	1.00%	HDPE SDR-26
9000-W-05	12"	69.62'	1.00%	HDPE SDR-26
9000-W-04	12"	5.00'	1.00%	HDPE SDR-26
9000-W-03	12"	9.42'	1.00%	HDPE SDR-26
9000-W-02	12"	19.29'	0.87%	HDPE SDR-26
9000-W-01	12"	12.52'	1.00%	HDPE SDR-26
9000-E-11	12"	13.00'	1.00%	HDPE SDR-26
9000-E-10	12"	9.42'	1.00%	HDPE SDR-26
9000-E-09	12"	61.63'	1.00%	HDPE SDR-26
9000-E-08	12"	13.00'	1.00%	HDPE SDR-26
9000-E-07	12"	9.42'	1.00%	HDPE SDR-26
9000-E-06	12"	41.83'	1.00%	HDPE SDR-26
9000-E-05	12"	32.79'	1.00%	HDPE SDR-26
9000-E-04	12"	9.42'	1.00%	HDPE SDR-26
9000-E-03	12"	25.04'	1.00%	HDPE SDR-26
9000-E-02	12"	26.42'	0.99%	HDPE SDR-26

KEY MAP (N.T.S.)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.

SECONDARY DRAINAGE SYSTEM NOTES:

1. ALL SECONDARY DRAINAGE SYSTEM STORM SEWER INFRASTRUCTURE IS PRIVATE AND OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL DOWNSPOUT CONNECTION PIPES ARE 6" DIAMETER HDPE FROM THE DOWNSPOUT CONNECTION TO THE SECONDARY DRAINAGE SYSTEM MAIN LINE. SECONDARY DRAINAGE SYSTEM MAIN LINES ARE 12" DIAMETER HDPE, AND LANDSCAPE DRAINS ARE 12" DIAMETER ADS DRAIN BASINS WITH A 12" DOME GRATE. SECONDARY DRAINAGE SYSTEMS CONNECT EITHER TO PRIVATE HDPE STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR STORM MANHOLES.
3. ALL DOWNSPOUT CONNECTION PIPES ARE TO HAVE A MINIMUM SLOPE OF 2% FROM THE SECONDARY DRAINAGE SYSTEM MAIN LINE TO THE DOWNSPOUT CONNECTION LOCATION.
4. ALL ADS 12" DOME GRATE INLETS ARE TO HAVE A 6" SUMP PER MANUFACTURER SPECIFICATIONS.
5. A MINIMUM COVER OF 18" IS TO BE PROVIDED FOR THE SECONDARY DRAINAGE SYSTEM AT ALL LOCATIONS.

PCD FILE NO.: _____

DRAWN BY: CMD | JOB DATE: 4/30/2026
APPROVED: RDL | JOB NUMBER: 2502477
CAD DATE: 4/30/2026
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BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
SECONDARY DRAINAGE SYSTEM PLAN IV

SHEET C.13

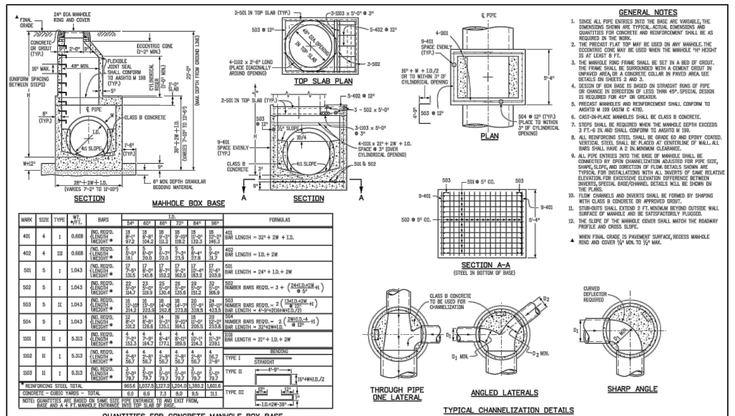
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HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-UTIL; 00-XC-UTIL; TB_24x36_2502477-CD; Storm Key Map

DOMBROWSKI, COLIN, 4/30/2026, 1:17 PM

HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - STORM SEWER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



GENERAL NOTES

1. SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE FIELD.
2. THE PRECAST FLAT TOP MAY BE USED ON ANY MANHOLE. THE ECCENTRIC CONE MAY BE USED WHEN THE MANHOLE 12" HEIGHT IS AT LEAST 8 FT.
3. THE MANHOLE RING FRAME SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A CEMENT GROUT TO PROVIDE A SMOOTH CONCRETE COLLAR IN PAVED AREA SEE DETAILS ON SHEETS 2 AND 3.
4. DESIGN OF BOX BASE IS BASED ON STRAIGHT RUNS OF PIPE OR CHANGE IN DIRECTION OF LESS THAN 45°. SPECIAL DESIGN IS REQUIRED FOR 45° OR GREATER.
5. PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO AASHTO M 199 SECTION 8 AND 9.
6. CAST-IN-PLACE MANHOLES SHALL BE CLASS B CONCRETE.
7. STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 2 FT-6 IN AND SHALL CONFORM TO AASHTO M 199.
8. ALL REINFORCING STEEL SHALL BE EPOXY COATED. VERTICAL SIZES, SHALL BE PLACED AT CENTERLINE OF WALL. ALL BARS SHALL HAVE A 2 IN MINIMUM CLEARANCE.
9. ALL PIPE ENTRIES INTO THE BASE OF MANHOLE SHALL BE CONNECTED BY OPEN CHANNELIZATION ADJUSTED FOR PIPE SIZE, SHAPE, SLOPE, AND DIRECTION OF FLOW DETAILS SHOWN ARE TYPICAL FOR INSTALLATIONS WITH ALL INVERTS OF SAME RELATIVE ELEVATION. FOR INSTALLATIONS WITH DIFFERENT PIPE SIZES, INVERTS, SPECIAL BASE/CHANNEL DETAILS WILL BE SHOWN ON THE PLANS.
10. FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE BY APPROVED GROUT.
11. SURFACE SLOPE WITHIN 2 FT. MINIMUM BEYOND OUTSIDE WALL SURFACE IS REQUIRED FOR SATISFACTORY DRAINAGE.
12. THE SLOPE OF THE MANHOLE CROWN SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.

▲ WHEN FINAL GRADE IS PAVEMENT SURFACE, RECESS MANHOLE RING AND COVER 1/2" MIN. TO 1 1/2" MAX.

QUANTITIES FOR CONCRETE MANHOLE BOX BASE

MARK	SIZE	TYPE	WT. PER ADJ.	BARS	0"	60°	90°	120°	180°	FORMULAS
401	4	I	0.668	ING. REQDS. LENGTH = WEIGHT =	2'-8	2'-8	2'-8	2'-8	2'-8"	401 BAR LENGTH = 32" + 2W + 1.5.
					53.3	54.2	55.1	56.1	57.0	
402	4	III	0.668	ING. REQDS. LENGTH = WEIGHT =	5'-4"	5'-4"	5'-4"	5'-4"	5'-4"	402 BAR LENGTH = 1.0 + 2W
					70.1	70.5	71.3	71.7	72.6	
501	5	I	1.043	ING. REQDS. LENGTH = WEIGHT =	3'-4"	3'-4"	3'-4"	3'-4"	3'-4"	501 BAR LENGTH = 24" + 1.5 + 2W
					104.5	104.9	105.2	105.6	106.0	
502	5	I	1.043	ING. REQDS. LENGTH = WEIGHT =	3'-4"	3'-4"	3'-4"	3'-4"	3'-4"	502 NUMBER BARS REQDS. = 3 + (SHOULDER H)
					104.7	105.9	107.2	108.4	109.6	
503	5	II	1.043	ING. REQDS. LENGTH = WEIGHT =	3'-10"	3'-10"	3'-10"	3'-10"	3'-10"	503 NUMBER BARS REQDS. = 2 + (SHOULDER H)
					104.7	105.9	107.2	108.4	109.6	
504	5	I	1.043	ING. REQDS. LENGTH = WEIGHT =	3'-10"	3'-10"	3'-10"	3'-10"	3'-10"	504 NUMBER BARS REQDS. = 2 + (SHOULDER H) BAR LENGTH = 32"+W+1.5
					104.7	105.9	107.2	108.4	109.6	
505	5	II	1.043	ING. REQDS. LENGTH = WEIGHT =	5'-4"	5'-4"	5'-4"	5'-4"	5'-4"	505 BAR LENGTH = 32" + 1.5 + 2W
					104.5	104.7	104.9	105.1	105.3	
506	5	II	1.043	ING. REQDS. LENGTH = WEIGHT =	5'-4"	5'-4"	5'-4"	5'-4"	5'-4"	506
					104.5	104.7	104.9	105.1	105.3	
507	5	II	1.043	ING. REQDS. LENGTH = WEIGHT =	5'-4"	5'-4"	5'-4"	5'-4"	5'-4"	507
					104.5	104.7	104.9	105.1	105.3	
* REINFORCING STEEL TOTAL					955.6	1,037.5	1,127.2	1,224.1	1,329.3	1,610.6
CONCRETE - CUBIC YARDS = TOTAL					6.0	6.6	7.3	8.0	8.9	11.1

NOTE: QUANTITIES ARE BASED ON SAME SIZE PIPE ENTERING TO AND EXIT FROM BASE AND A 6 FT-0 MINIMUM ENTRANCE WIDTH TOP SLAB OF BOX.

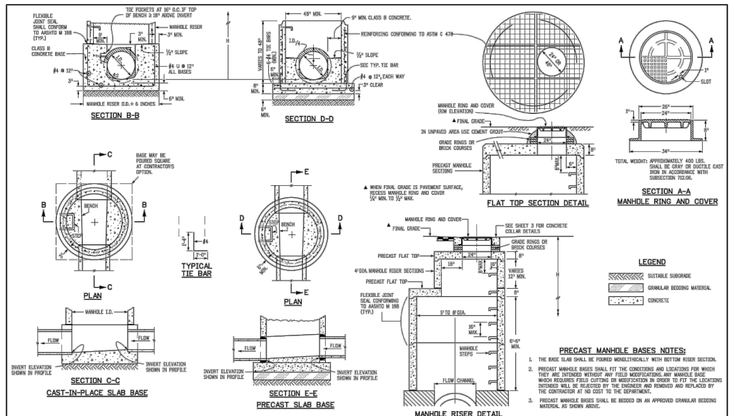
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MANHOLES

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO. M-604-20
Standard Sheet No. 1 of 3
Project Sheet Numbers



SECTION A-A
MANHOLE RING AND COVER

TOTAL WEIGHT: APPROXIMATELY 400 LBS.
SHALL BE CRAFT OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.05.

LEGEND
- SUITABLE SUBGRADE
- GRANULAR BEDDING MATERIAL
- CONCRETE

PRECAST MANHOLE BASES NOTES:

1. THE BASE SLAB SHALL BE POURED MONOLITHICALLY WITH BOTTOM RISER SECTION.
2. PRECAST MANHOLE BASES SHALL FIT THE CONDITIONS AND LOCATIONS FOR WHICH THEY ARE DESIGNED. ANY FIELD CUTTING OR MODIFICATION OF PRECAST MANHOLE REQUIRED FIELD CUTTING OR MODIFICATION IN ORDER TO FIT THE LOCATIONS INTENDED WILL BE REJECTED BY THE ENGINEER AND REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT.
3. PRECAST MANHOLE BASES SHALL BE BEDDED ON AN APPROVED GRANULAR BEDDING MATERIAL AS SHOWN ABOVE.

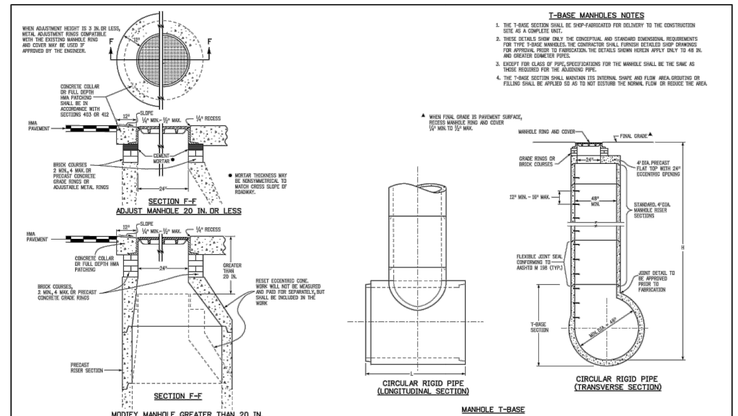
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MANHOLES

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STANDARD PLAN NO. M-604-20
Standard Sheet No. 2 of 3
Project Sheet Numbers



T-BASE MANHOLES NOTES

1. THE T-BASE SECTION SHALL BE SHOP-FABRICATED FOR DELIVERY TO THE CONSTRUCTION SITE AS A COMPLETE UNIT.
2. THESE DETAILS SHOW ONLY THE CONCEPTUAL AND STANDARD DIMENSIONAL REQUIREMENTS FOR TYPE T-BASE MANHOLES.THE CONTRACTOR SHALL FURNISH DETAILED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.THE DETAILS SHOWN HEREIN APPLY ONLY TO 48 IN. AND GREATER DIAMETER PIPES.
3. EXCEPT FOR CLASS IV RCP, SPECIFICATIONS FOR THE MANHOLE SHALL BE THE SAME AS THOSE REQUIRED FOR THE ADJOINING PIPE.
4. THE T-BASE SECTION SHALL MAINTAIN ITS INTERNAL SHAPE AND FLOW AREA.DISTORTING OR FILLING SHALL BE APPLIED SO AS TO NOT DISTURB THE NORMAL FLOW OR REDUCE THE AREA.

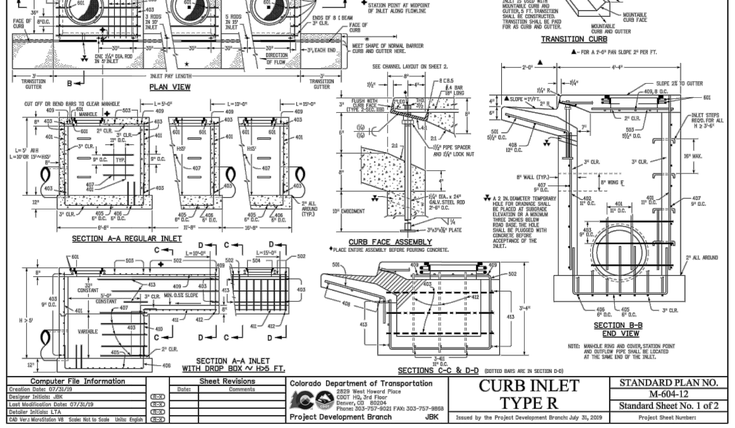
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MANHOLES

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STANDARD PLAN NO. M-604-20
Standard Sheet No. 3 of 3
Project Sheet Numbers



GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 INCHES THICK.
3. INLET STOPS SHALL BE IN CONFORMANCE WITH AASHTO M 199.
4. CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4, OF A INCH. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
6. REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 INCH MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE GRADE 60 AND EPOXY COATED.
7. DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
8. MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.05.
9. SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE,THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
10. CONSTRUCTIONAL STEEL SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.04.
11. ALL MANHOLE COVERS SHALL BE CAST WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE AND A FISH SYMBOL.THE SURFACES OF THE MANHOLE COVER SHALL HAVE A NON-SLIP PATTERN.

MARK	BAR # SIZE	O.C. SPACING	TYPE	ALL INLETS	INLETS H ≤ 5 FT.				INLETS H > 5 FT.			
				L = 5 FT.	L = 10 FT.		L = 15 FT.		L = 10 FT.		L = 15 FT.	
				NO. REQDS. LENGTH	NO. REQDS.	LENGTH	NO. REQDS.	LENGTH	NO. REQDS.	LENGTH	NO. REQDS.	LENGTH
403	4	9"		10	10	*	15	*	2	*	3	*
403	4	12"		2	13	*	18	*	2	*	2	*
403	4	9"		*	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"
405	4	9"	VI	10	8'-09"	10	8'-09"	10	8'-09"	10	8'-09"	10
408	4	9"	VIII	2	8'-09"	2	13'-07"	2	19'-05"	2	8'-09"	2
408	4	12"		2	8'-09"	2	13'-07"	2	19'-05"	2	8'-09"	2
408	4	9"		3	8'-09"	3	13'-07"	3	19'-05"	3	13'-07"	3
410	4	12"		3	8'-09"	3	13'-07"	3	19'-05"	3	13'-07"	3
413	4	9"						3	8'-09"	3	8'-09"	3
413	4	12"						3	8'-09"	3	8'-09"	3
413	4	9"						3	13'-07"	7	13'-07"	7
501	5	12"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33
502	5	12"	III							6	8'-0"	17
503	5	12"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	5
504	5	12"	IV							5	8'-4"	
505	6	12"	V	2	8'-02"	2	8'-02"	2	8'-02"	2	8'-02"	4
■ QUA.S					1 3.5KPLF/KIPS		1 3.5KPLF/KIPS		1 3.5KPLF/KIPS		1 3.5KPLF/KIPS	

* VARIABLE REFER TO TABLE TWO.
■ INCLUDE #4, 36 BARS (SEE CHANNEL LAYOUT).

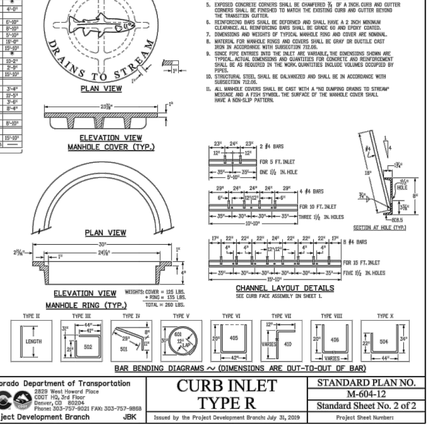
REGULAR INLETS DROP BOX INLETS

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

"H"	LENGTH 401	402	403	NO. REQDS. REGULAR 403	407	NO. REQDS. DROP BOX 403	407	L = 5 FT. CONC. VOL.	STEEL WEIGHT LBS.	L = 10 FT. CONC. VOL.	STEEL WEIGHT LBS.	L = 15 FT. CONC. VOL.	STEEL WEIGHT LBS.
2'-0"	2'-0"	1'-8"		10	7			3.3	355	5.3	497	7.4	726
2'-6"	2'-6"	2'-2"		10	7			3.4	355	5.2	538	7.3	747
4'-0"	3'-0"	2'-8"		12	9			3.7	504	6.0	559	8.4	865
4'-6"	3'-6"	3'-2"		12	9			3.8	504	6.0	559	8.4	865
5'-0"	4'-0"	3'-8"		14	11			4.0	514	6.3	600	9.5	944
5'-6"	4'-6"	4'-2"	8'-0"	16	13	19	8	4.4	375	6.9	607	7.4	858
6'-0"	5'-0"	4'-8"	8'-0"	16	15	19	8	4.6	393	7.2	616	7.8	893
6'-6"	5'-0"	5'-2"	8'-0"	18	15	19	8	4.8	410	8.4	637	7.8	880
7'-0"	5'-0"	5'-8"	8'-0"	20	15	19	8	5.0	427	8.0	654	8.0	907
7'-6"	7'-0"	6'-2"	9'-0"	20	17	22	10	5.3	450	8.9	664	8.3	922
8'-0"	7'-0"	6'-8"	9'-0"	22	19	22	10	5.5	465	9.1	664	8.5	922
8'-6"	8'-0"	7'-2"	9'-0"	24	21	23	14	5.7	471	7.3	722	8.7	944
9'-0"	8'-0"	7'-8"	9'-0"	26	23	24	14	6.0	478	7.6	79	8.9	944
9'-6"	8'-0"	8'-2"	9'-0"	28	23	25	15	6.3	499	7.8	732	9.2	974
10'-0"	8'-0"	8'-8"	9'-0"	30	25	27	15	6.4	515	8.0	743	9.4	995
10'-6"	10'-0"	9'-2"	9'-0"	32	25	28	15	6.7	517	8.3	739	9.7	1001
11'-0"	10'-0"	9'-8"	9'-0"	32	27	30	17	6.9	543	8.5	773	9.9	1039

NOTES FOR L= 5 FT.,L=10 FT.,AND L=15 FT.
REGULAR INLETS TOTAL NUMBERS NEEDED ARE OUTSIDE THE HEAVY BLACK LINE.
DROP BOX INLETS TOTAL NUMBERS NEEDED ARE INSIDE THE HEAVY BLACK LINE.
STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"



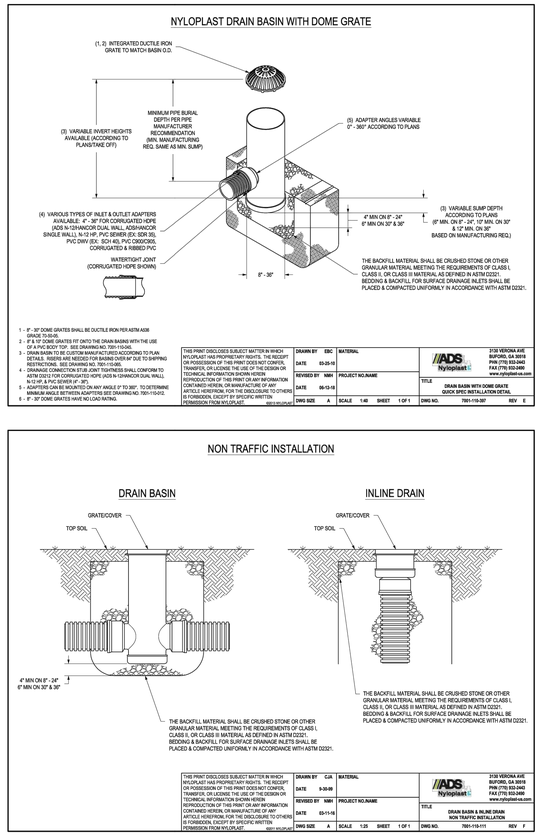
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CURB INLET TYPE R

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STANDARD PLAN NO. M-604-12
Standard Sheet No. 2 of 2
Project Sheet Numbers



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7091-110-06.
3 - DRAIN BASINS TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DEPTHS. ALL DEPTHS ARE APPROXIMATE AND MAY VARY DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7091-110-06.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE PIPE IN CONNXCON DUAL WALL N-12 HP, & PVC SEWER (4"-36").
5 - ADAPTERS CAN BE MOUNTED AT ANY ANGLE 0° TO 90°. TO DETERMINE MINIMUM SUMP, SEE BETWEEN DRAWING NO. 7091-110-02.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

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	DATE: 03-25-14	
	REVISED BY: MAH	PROJECT NO./NAME:
	DATE: 06-13-19	
	DWG SIZE: A	SCALE: 1:40 SHEET: 1 OF 1

ADS Nyloplast
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BUFORD, GA 30518
PHN (770) 932-2442
FAX (770) 932-2480
www.nyloplast-us.com

TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO.: 7091-110-07 REV: E

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	DATE: 9-30-09	
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	DATE: 03-11-10	
	DWG SIZE: A	SCALE: 1:25 SHEET: 1 OF 1

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BUFORD, GA 30518
PHN (770) 932-2442
FAX (770) 932-2480
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TITLE: DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION

DWG NO.: 7091-110-11 REV: F

PCD FILE NO.:

HR GREEN Xrefs: TB_24x36_2502477-CD

DRAWN BY: CMD	JOB DATE: 4/27/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"	
APPROVED: RDL	JOB NUMBER: 2502477	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD DATE: 4/30/2026			
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\CD-Storm Details			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
STORM DETAILS

SHEET C.14

14

DOMBROWSKI, COLIN 4/30/2026 1:25 PM

HILLPOINTE APARTMENTS AT PETERSON
WASTEWATER CONSTRUCTION DRAWINGS

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

LEGAL DESCRIPTION:

LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

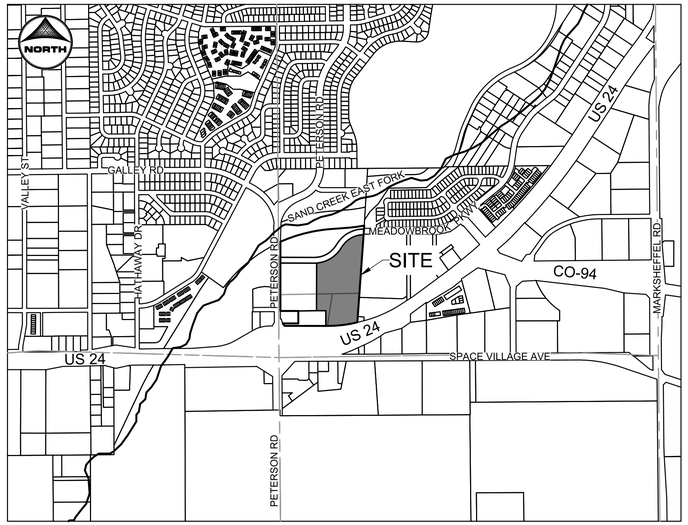
1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FILED NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC)
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   D. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY EPC.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPLACED AT THE CONTRACTORS EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
4. ALL BACKFILL, SUB-BASE AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEERS RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.
5. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED.
6. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC ECM APPENDIX K - 1.2C
7. ALL INTERSECTION ACCESSES ARE TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLE AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" IN THIS AREA.
8. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED FOR ROADS SHALL BE PER DESIGN REPORT BY OWNERS GEOTECHNICAL ENGINEER. OWNERS GEOTECHNICAL ENGINEER TO BE ON SITE AT TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENTS DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
9. TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180n OR EQUAL MAY BE SUBSTITUTED WHERE TYPE I RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.
10. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS AND WITH METRO DISTRICT CONSULTING ENGINEER APPROVAL.
11. CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED AS-BUILT OF ALL STORM SEWER AND CISTERN INSTALLATIONS, INCLUDING ACCURATE DISTANCES OF MAIN LINES, VALVES, FITTINGS, MANHOLES, AND LOCATIONS OF APPURTENANCES.
12. DRAINAGE EASEMENTS ARE PLATTED THROUGHOUT THE FILING AND ARE NO-BUILD AREAS. ALL OTHER AREAS THAT FALL WITHIN IDENTIFIED GEOLOGIC HAZARD AREAS (SEASONAL STORMWATER POOLING, STANDING WATER CONDITIONS) MAY BE MITIGATED ON A PER LOT BASIS WITH EARTHWORK AND FINE GRADING CONSTRUCTION. NO DISTURBANCE FOR EARTHWORK OR GRADING SHALL TAKE PLACE WITHIN THE DESIGNATED DRAINAGE EASEMENTS AND ANY SITE AND FUTURE LOT DISTURBANCE THAT ALTERS THE EXISTING TOPOGRAPHY SHALL DRAIN TO THE DRAINAGE EASEMENTS ON SITE.

ABBREVIATIONS

Δ	DEFLECTION ANGLE
Ø, DIA	DIAMETER
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABC	ASPHALT BASE COURSE
ABD	ABANDONED
AC	ACRE
ADA	THE AMERICANS WITH DISABILITIES ACT
ASPH	ASPHALT
ASS'Y	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
BFE	BASE FLOOD ELEVATION
BLDG	BUILDING
BLVD	BOULEVARD
BM	BENCH MARK
BNDY	BOUNDARY
BOP	BOTTOM OF POND
BW	BOTTOM OF WALL
C&G	CURB AND GUTTER
CA	COARSE AGGREGATE
CATV	CABLE TELEVISION
CB	CHORD BEARING/CATCH BASIN
CFS	CUBIC FEET PER SECOND
CIP	CAST IRON PIPE
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
COMP	COMPOSITE
CONC	CONCRETE
CONST	CONSTRUCT OR CONSTRUCTION
CSP	CORRUGATED STEEL PIPE
CSU	COLORADO SPRINGS UTILITIES
CT	COURT
CTR	CENTER
CU	COPPER
CY	CUBIC YARD
DBL	DOUBLE
DEG	DEGREE
DET	DETAIL
DEPT	DEPARTMENT
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DOT	DEPARTMENT OF TRANSPORTATION
DWG	DRAWING
E	EAST/EASTING
EL	ELEVATION
ELEC	ELECTRIC
EOG	EDGE OF GUTTER
EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EW	ENDWALL
EX	EXISTING
FD	FRENCH DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FE	FLANGE ELEVATION
FES	FLARED END SECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FL	FLOW LINE
FOC	FIBER OPTICS CABLE
FT	FOOT OR FEET
GB	GRADE BREAK
GAL	GALLON
HDPE	HIGH DENSITY POLYETHYLENE
HC RAMP	HANDICAP RAMP
HW	HEADWALL
INV	INVERT
KM	KILOMETER
L	LENGTH
LF	LINEAR FEET
M	METER
MIN	MINIMUM
MISC	MISCELLANEOUS
MAINT	MAINTENANCE
MAX	MAXIMUM
MH	MANHOLE
MP	MIDPOINT
N	NORTH/NORTHING
NO	NUMBER
OC	ON CENTER
OH	OVERHEAD
PB	PUBLIC
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	POINT OF CURB RETURN
PI	POINT OF INTERSECTION
PIE	PUBLIC IMPROVEMENT ESMT
PT	POINT OF TANGENCY
PRC	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PRV	PRESSURE REDUCING VALVE
PVT	PRIVATE
PUAE	PUBLIC UTILITY AND ACCESS ESMT
PUADE	PUBLIC UTILITY, ACCESS AND DRAINAGE ESMT
PVC	POLYVINYL CHLORIDE
R	RADIUS
REC	RECEPTION
RCBC	REINFORCED CONCRETE BOX CULVERT
S	SOUTH
SHT	SHEET
SQ	SQUARE
SW	SPILLWAY
TBC	TOP BACK OF CURB
TC	TRICKLE CHANNEL
TOP	TOP OF POND
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
VERT	VERTICAL
W	WEST
WW	WASTEWATER
WWF	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
YD	YARD



VICINITY MAP
SCALE: 1" = 1000'

SHEET INDEX:

1 - WASTEWATER COVER
2 - WASTEWATER A.1 MAIN PLAN & PROFILE
3 - WASTEWATER A.1 SERVICES
4 - WASTEWATER A.2 MAIN PLAN & PROFILE
5 - WASTEWATER A.2 SERVICES
6 - WASTEWATER B MAIN PLAN & PROFILE
7 - WASTEWATER B SERVICES
8 - WASTEWATER C & D PLAN & PROFILE
9 - WASTEWATER SERVICES TABLES

PROJECT CONTACTS:

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MATRIX DESIGN GROUP
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LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
BARBED WIRE FENCE		
WOODEN FENCE		
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN	G	G
SANITARY SEWER		
STORM DRAIN		
LANDSCAPE DRAIN		
ROOF DRAIN		
WATER MAIN	W	W
SWALE		
TRAIL		
ADA ROUTE		
CURB & GUTTER		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		

STORM SEWER	EXISTING	PROPOSED
MANHOLE		
STORM INLET		
LANDSCAPE DOME INLETS		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER	
CLEAN OUT	
MANHOLE	S
PLUG	

WATER	
FIRE HYDRANT	
FIRE DEPT. CONNECTION	
GATE VALVE	
MANHOLE	W
METER	
TEE	
REDUCER	

DRY UTILITIES	
ELECTRIC METER	
ELECTRIC PEDESTAL	
ELECTRICAL CABINET	
ELECTRIC VAULT	
ELECTRIC VEHICLE CHARGER	EV
FIBER OPTIC PULL BOX	
FIBER OPTIC MANHOLE	
FIBER OPTIC PEDESTAL	
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	
GAS METER	
GAS SIGN	
GAS VAULT	
TRANSFORMER	
LIGHT POLE	

MISCELLANEOUS	
SIGN	
BOLLLARD	
ACCESSIBLE PARKING	
PARKING COUNT	10

OWNER/DEVELOPER PLAN APPROVAL

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THEY SHALL, AT THEIR EXPENSE, BE SOLELY RESPONSIBLE FOR 1) THE INSTALLATION OF THE PROPOSED UTILITY INFRASTRUCTURE IN ACCORDANCE WITH THESE PLANS, AND 2) ALL DAMAGES AND DEFECTS ARISING FROM, OR RELATED TO, THE INSTALLATION, MAINTENANCE OR OPERATION OF THE PUBLIC UTILITY INFRASTRUCTURE FROM THE DATE OF PRELIMINARY ACCEPTANCE FOR PERIOD OF TWO YEARS, OR UNTIL FINAL ACCEPTANCE, WHICHEVER IS LATER.

THE UNDERSIGNED UNDERSTANDS THAT ALL PRIVATE UTILITY INFRASTRUCTURE, AS INDICATED ON THESE PLANS, SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE MAINTAINED BY THE OWNER, AS REQUIRED BY *COLORADO SPRINGS UTILITIES' LINE EXTENSION AND SERVICE STANDARDS.*

☐ PUBLIC WATER MAIN PROPOSED ☐ PUBLIC WASTEWATER MAIN PROPOSED ☐ PRIVATE WATER SERVICE LINE (<4") AND/OR PRIVATE WASTEWATER SERVICE LINE (<8")
☐ PRIVATE WATER MAIN PROPOSED ☐ PRIVATE WASTEWATER MAIN PROPOSED

SIGNED:_____ DATE:_____
OWNER/DEVELOPER

_____
OWNER/DEVELOPER (PRINT NAME)

DBA:_____

ADDRESS:_____

PHONE:_____

EMAIL:_____

CHEROKEE METROPLOITAN DISTRICT

WASTEWATER PLAN APPROVAL

THE CHEROKEE METROPOLITAN DISTRICT RECOGNIZES THE DESIGN PROFESSIONAL OF RECORD AS THE LICENSED ENGINEER HAVING RESPONSIBILITY FOR THE SUBMITTED DESIGN AND THE DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. AS SUCH, THE APPROVAL GRANTED HEREIN IS FOR THE CONSTRUCTION OF THE FACILITIES AS REPRESENTED ON THESE DOCUMENTS. APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE BELOW AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

APPROVED BY:_____ DATE:_____

PCD FILE NO.: _____

HR GREEN Xrefs: VICINITY--MAP; TB_24x36_2502477--CD

DRAWN BY: CMD JOB DATE: 4/28/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\Utilities - Cherokee Metro District\CD-Sanitary Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
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PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER COVER

SHEET CV

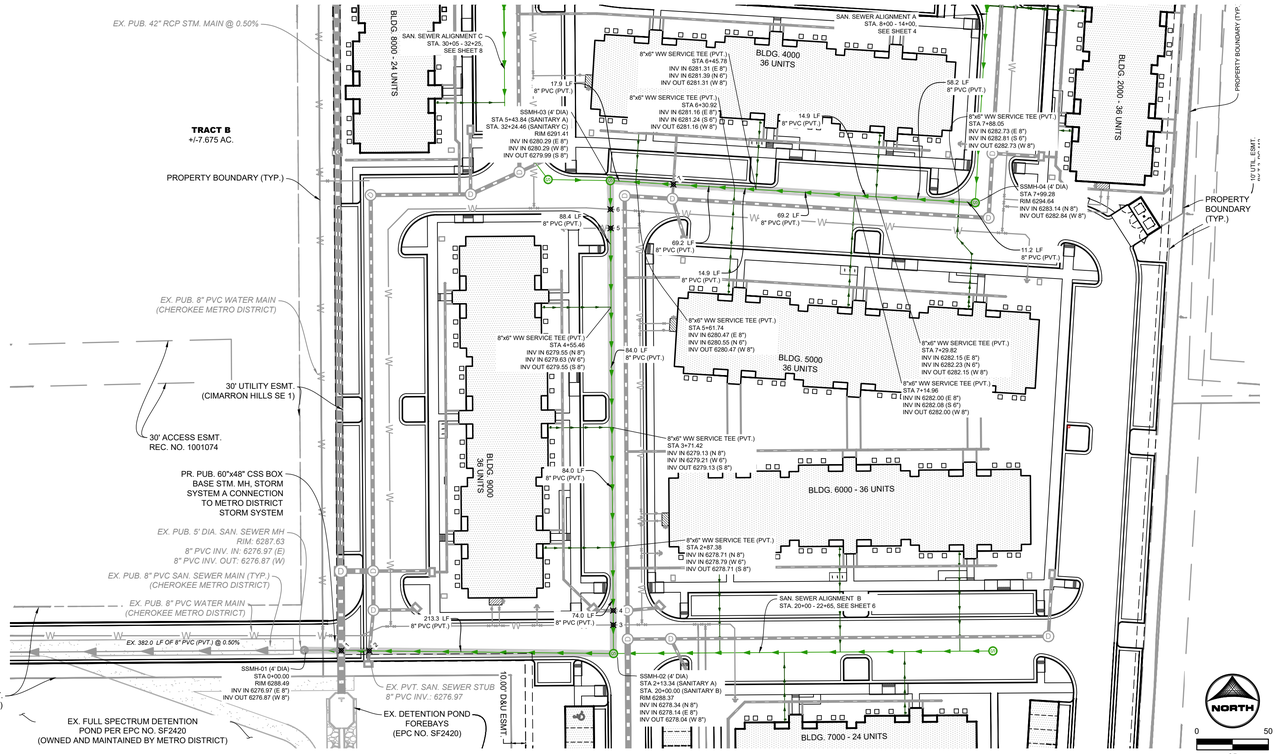
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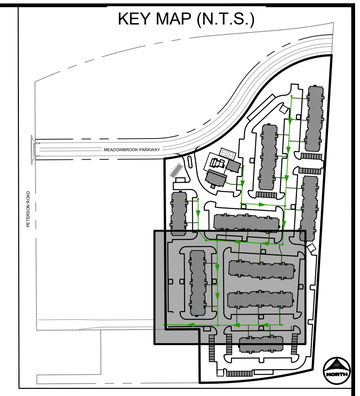
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WASTEWATER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

UTILITY CROSSINGS TABLE			
POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
1	6281.23 PR-STORM	6277.78 PR SANITARY	3.45
2	6284.76 PR-STORM	6277.88 PR SANITARY	6.88
3	6281.34 PR WATER CROSSINGS	6279.13 PR SANITARY	2.21
4	6284.61 PR-STORM	6279.18 PR SANITARY	5.42
5	6283.61 PR WATER CROSSINGS	6280.52 PR SANITARY	3.09
6	6283.53 PR WATER CROSSINGS	6280.59 PR SANITARY	2.95
7	6287.10 PR-STORM	6281.42 PR SANITARY	5.67



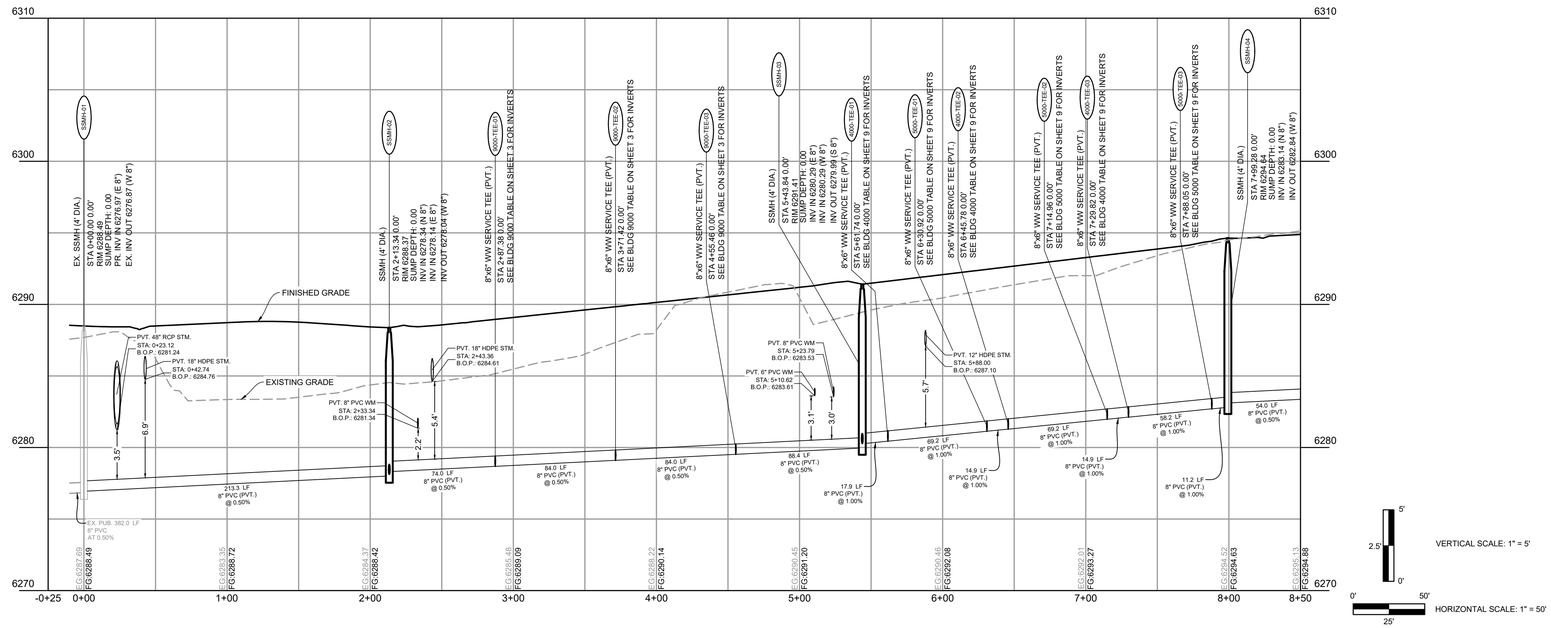


UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
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5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
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8. SANITARY SEWER AND STORM SEWER MANHOLE STRUCTURE SIZES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE TO BE FINALIZED AT CONSTRUCTION DRAWING LEVEL.
9. UTILITY CONFLICTS REQUIRING LOWERINGS ARE TO BE DETERMINED AT CONSTRUCTION DRAWING LEVEL.

PRIVATE SANITARY SEWER MAIN A

(STA. 0+00 - 8+00)



PCD FILE NO.:

DRAWN BY: CMD JOB DATE: 4/29/2026
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1975 RESEARCH PARKWAY SUITE 160
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER A.1 MAIN PLAN & PROFILE

SHEET SAN 2

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Sanitary Key Map

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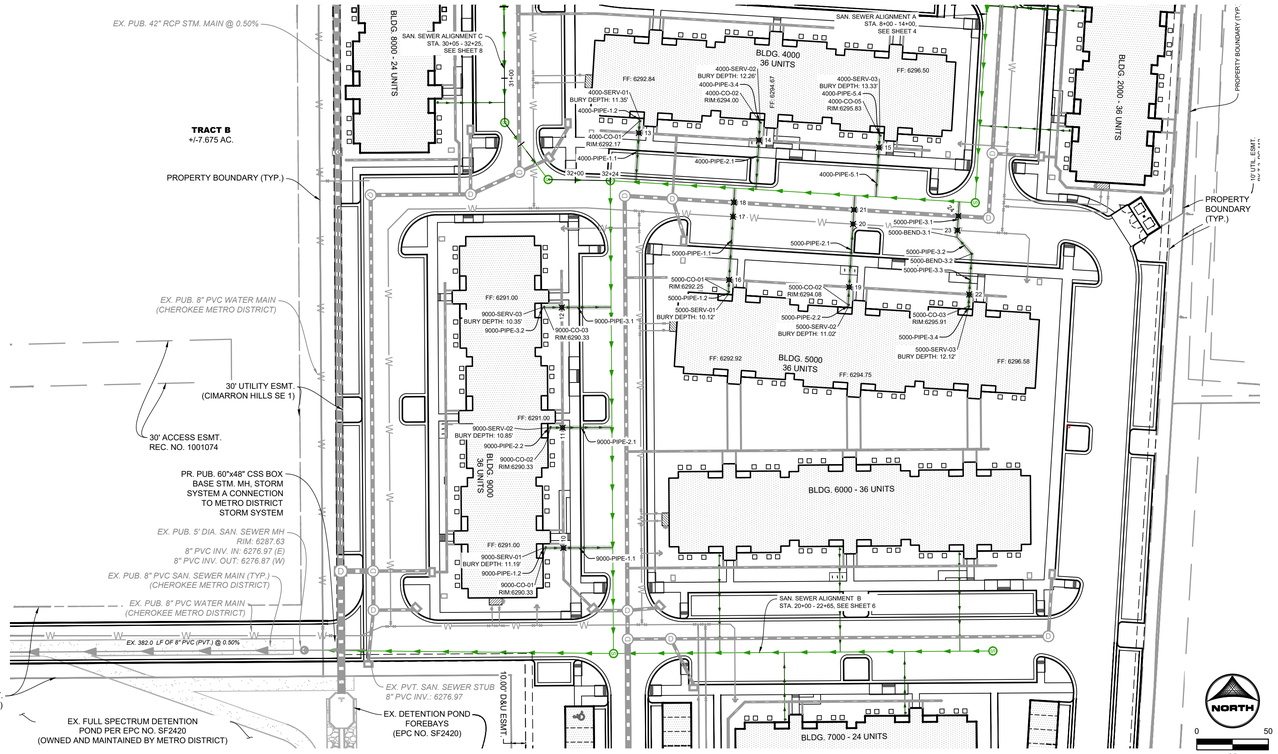
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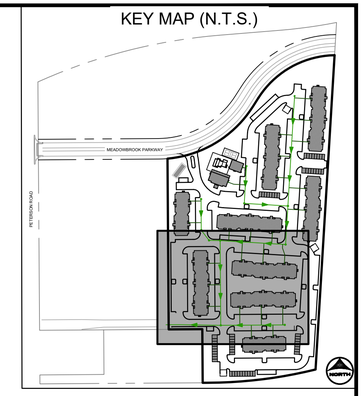
APARTMENT BUILDING 9000 SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE			
FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
9000-CO-01	SANITARY A STA. 2+87.38 O/S: -46.79' L	6" CLEANOUT 9000-PIPE-1.2 INV IN (W) = 6279.77 9000-PIPE-1.1 INV OUT (E) = 6279.77	N:1368483.372 E:3229284.508
9000-SERV-01	SANITARY A STA. 2+87.38 O/S: -48.79' L	BLDG. 9000 - WW SERVICE #1 9000-PIPE-1.2 INV OUT (E) = 6279.81	N:1368483.359 E:3229282.508
9000-TEE-01	SANITARY A STA. 2+87.38 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-02c INV IN (N) = 6278.71 9000-PIPE-1.1 INV IN (W) = 6278.79 SSWR PIPE-02a INV OUT (S) = 6278.71	N:1368483.689 E:3229331.299
9000-CO-02	SANITARY A STA. 3+71.42 O/S: -42.86' L	6" CLEANOUT 9000-PIPE-2.2 INV IN (W) = 6280.11 9000-PIPE-2.1 INV OUT (E) = 6280.11	N:1368567.439 E:3229287.876
9000-SERV-02	SANITARY A STA. 3+71.42 O/S: -44.79' L	BLDG. 9000 - WW SERVICE #2 9000-PIPE-2.2 INV OUT (E) = 6280.15	N:1368567.426 E:3229285.940
9000-TEE-02	SANITARY A STA. 3+71.42 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-02e INV IN (N) = 6279.13 9000-PIPE-2.1 INV IN (W) = 6279.21 SSWR PIPE-02c INV OUT (S) = 6279.13	N:1368567.728 E:3229330.731
9000-CO-03	SANITARY A STA. 4+55.46 O/S: -46.79' L	6" CLEANOUT 9000-PIPE-3.2 INV IN (W) = 6280.61 9000-PIPE-3.1 INV OUT (E) = 6280.61	N:1368651.452 E:3229283.372
9000-SERV-03	SANITARY A STA. 4+55.46 O/S: -48.79' L	BLDG. 9000 - WW SERVICE #3 9000-PIPE-3.2 INV OUT (E) = 6280.65	N:1368651.438 E:3229281.372
9000-TEE-03	SANITARY A STA. 4+55.46 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-02g INV IN (W) = 6279.55 9000-PIPE-3.1 INV IN (W) = 6279.63 SSWR PIPE-02e INV OUT (S) = 6279.55	N:1368651.768 E:3229330.163

SANITARY SERVICES PIPE TABLE					
NAME	SIZE	LENGTH	SLOPE	MATERIAL	
9000-PIPE-1.1	6"	46.79'	2.10%	PVC SDR-26	
9000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26	
9000-PIPE-2.1	6"	42.86'	2.10%	PVC SDR-26	
9000-PIPE-2.2	6"	1.94'	2.10%	PVC SDR-26	
9000-PIPE-3.1	6"	46.79'	2.10%	PVC SDR-26	
9000-PIPE-3.2	6"	2.00'	2.10%	PVC SDR-26	



PRIVATE SANITARY SEWER MAIN A
(STA. 0+00 - 8+00)



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UTILITY CROSSINGS TABLE			
POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
10	6285.67 PR-STORM	6280.04 PR SANITARY	5.63
11	6286.61 PR-STORM	6280.46 PR SANITARY	6.15
12	6287.55 PR-STORM	6280.88 PR SANITARY	6.67
13	6288.35 PR-STORM	6281.80 PR SANITARY	6.56
14	6289.23 PR-STORM	6282.64 PR SANITARY	6.60
15	6291.01 PR-STORM	6283.48 PR SANITARY	7.53
16	6287.87 PR-STORM	6283.11 PR SANITARY	4.76
17	6286.92 PR WATER CROSSINGS	6282.18 PR SANITARY	4.74
18	6287.07 PR-STORM	6281.97 PR SANITARY	5.10
19	6289.23 PR-STORM	6283.95 PR SANITARY	5.28
20	6287.92 PR WATER CROSSINGS	6283.02 PR SANITARY	4.90
21	6287.95 PR-STORM	6282.81 PR SANITARY	5.14
22	6290.94 PR-STORM	6284.77 PR SANITARY	6.17
23	6288.80 PR WATER CROSSINGS	6283.75 PR SANITARY	5.05
24	6288.71 PR-STORM	6283.54 PR SANITARY	5.17

PCD FILE NO.:

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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER A.1 SERVICES

SHEET SAN 3

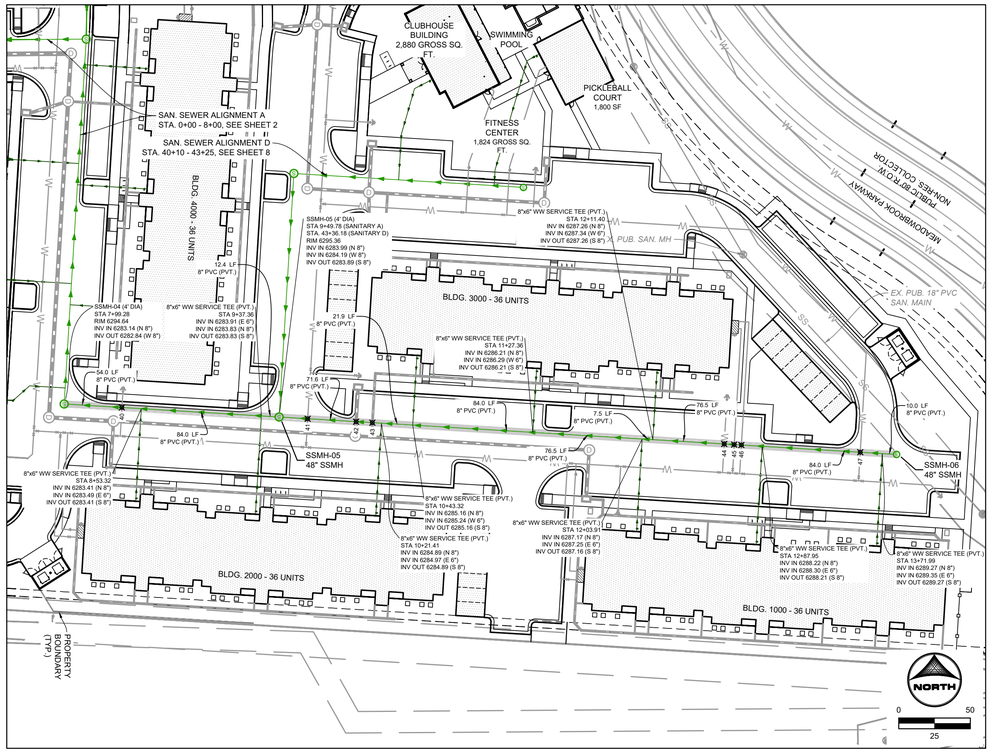
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WASTEWATER PLAN & PROFILES

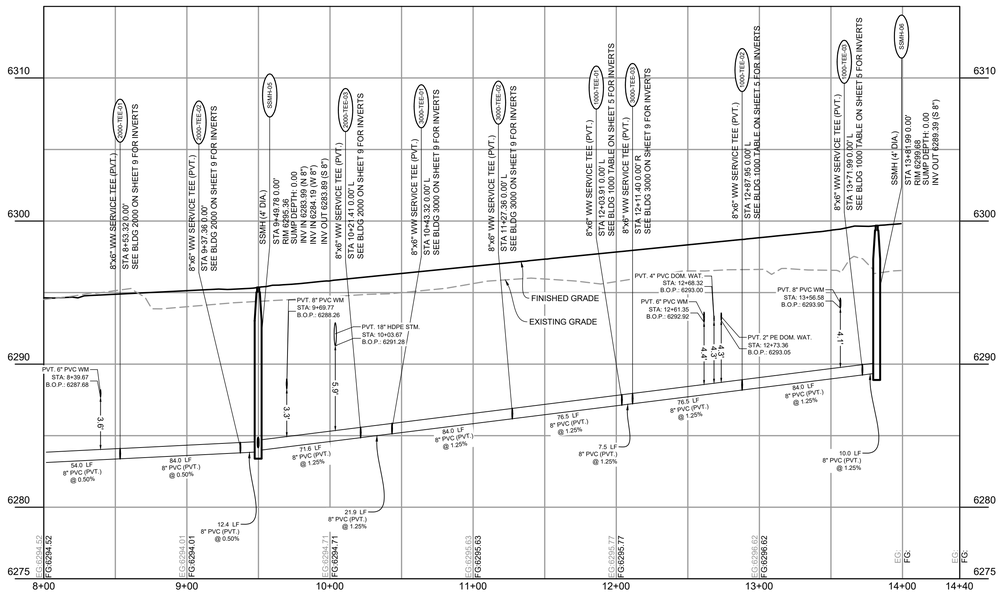
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UTILITY CROSSINGS TABLE			
POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
40	6287.68 PR WATER CROSSINGS	6284.04 PR SANITARY	3.64
41	6288.26 PR WATER CROSSINGS	6284.93 PR SANITARY	3.33
42	6291.28 PR-STORM	6285.36 PR SANITARY	5.92
43	6291.50 PR-STORM	6285.50 PR SANITARY	6.00
44	6292.92 PR WATER CROSSINGS	6288.57 PR SANITARY	4.35
45	6293.00 PR WATER CROSSINGS	6288.66 PR SANITARY	4.34
46	6293.05 PR WATER CROSSINGS	6288.72 PR SANITARY	4.32
47	6293.90 PR WATER CROSSINGS	6289.77 PR SANITARY	4.13

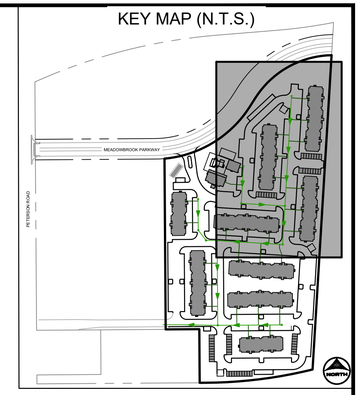


PRIVATE SANITARY SEWER MAIN A

(STA. 8+00 - 14+40)



KEY MAP (N.T.S.)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER A.2 MAIN PLAN & PROFILE

SHEET SAN 4

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL_TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Sanitary Key Map

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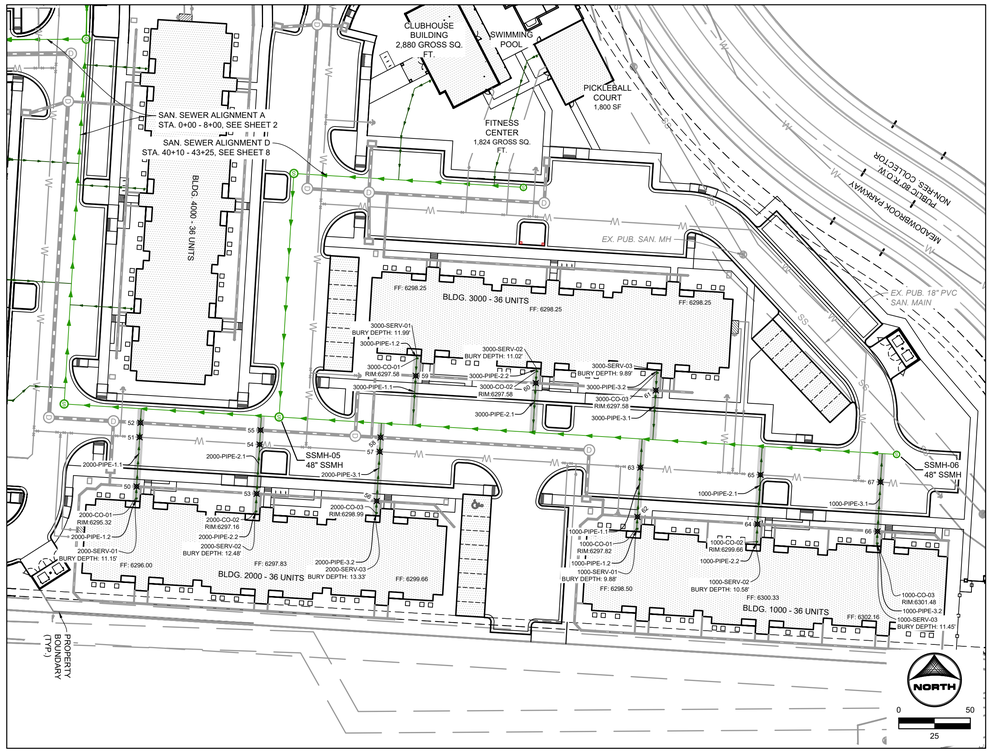
HILLPOINTE APARTMENTS AT PETERSON
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PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

APARTMENT BUILDING 1000 SANITARY SERVICES INFORMATION:

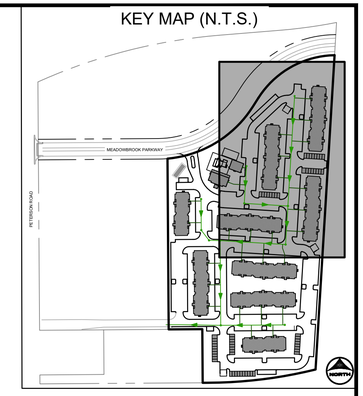
SANITARY FITTINGS TABLE			
FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
1000-TEE-01	SANITARY A STA. 12+03.91 O/S: 0.00' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05n INV IN (N) = 6287.17 1000-PIPE-1.1 INV IN (E) = 6287.25 SSWR PIPE-05g INV OUT (S) = 6287.16	N:1369128.571 E:3229609.016
1000-CO-01	SANITARY A STA. 12+03.91 O/S: 62.79' R	6" CLEANOUT 1000-PIPE-1.2 INV IN (E) = 6288.57 1000-PIPE-1.1 INV OUT (W) = 6288.57	N:1369124.773 E:3229671.693
1000-SERV-01	SANITARY A STA. 12+03.91 O/S: 64.79' R	BLDG. 1000 - WW SERVICE #1 1000-PIPE-1.2 INV OUT (W) = 6288.61	N:1369124.652 E:3229673.689
1000-TEE-02	SANITARY A STA. 12+87.95 O/S: 0.00' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05m INV IN (N) = 6288.22 1000-PIPE-2.1 INV IN (E) = 6288.30 SSWR PIPE-05k INV OUT (S) = 6288.21	N:1369212.459 E:3229614.099
1000-CO-02	SANITARY A STA. 12+87.95 O/S: 66.79' R	6" CLEANOUT 1000-PIPE-2.2 INV IN (E) = 6289.70 1000-PIPE-2.1 INV OUT (W) = 6289.70	N:1369208.419 E:3229680.769
1000-SERV-02	SANITARY A STA. 12+87.95 O/S: 68.79' R	BLDG. 1000 - WW SERVICE #2 1000-PIPE-2.2 INV OUT (W) = 6289.74	N:1369208.298 E:3229682.765
1000-TEE-03	SANITARY A STA. 13+71.99 O/S: 0.00' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05o INV IN (N) = 6289.27 1000-PIPE-3.1 INV IN (E) = 6289.35 SSWR PIPE-05m INV OUT (S) = 6289.27	N:1369296.347 E:3229619.182
1000-CO-03	SANITARY A STA. 13+71.99 O/S: 62.79' R	6" CLEANOUT 1000-PIPE-3.2 INV IN (E) = 6290.67 1000-PIPE-3.1 INV OUT (W) = 6290.67	N:1369292.549 E:3229681.859
1000-SERV-03	SANITARY A STA. 13+71.99 O/S: 64.79' R	BLDG. 1000 - WW SERVICE #3 1000-PIPE-3.2 INV OUT (W) = 6290.71	N:1369292.428 E:3229683.855

SANITARY SERVICES PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
1000-PIPE-1.1	6"	62.79'	2.10%	PVC SDR-26
1000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
1000-PIPE-2.1	6"	66.79'	2.10%	PVC SDR-26
1000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26
1000-PIPE-3.1	6"	62.79'	2.10%	PVC SDR-26
1000-PIPE-3.2	6"	2.00'	2.10%	PVC SDR-26



PRIVATE SANITARY SEWER MAIN A

(STA. 8+00 - 14+40)



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UTILITY CROSSINGS TABLE			
POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
50	6290.91 PR-STORM	6285.16 PR SANITARY	5.75
51	6288.70 PR WATER CROSSINGS	6284.43 PR SANITARY	4.27
52	6290.06 PR-STORM	6284.22 PR SANITARY	5.83
53	6292.29 PR-STORM	6285.58 PR SANITARY	6.71
54	6289.12 PR WATER CROSSINGS	6284.85 PR SANITARY	4.27
55	6290.55 PR-STORM	6284.64 PR SANITARY	5.90
56	6294.07 PR-STORM	6286.64 PR SANITARY	7.43
57	6289.85 PR WATER CROSSINGS	6285.91 PR SANITARY	3.94
58	6291.19 PR-STORM	6285.70 PR SANITARY	5.49
59	6292.23 PR-STORM	6286.49 PR SANITARY	5.74
60	6293.16 PR-STORM	6287.54 PR SANITARY	5.62
61	6294.10 PR-STORM	6288.59 PR SANITARY	5.51
62	6294.08 PR-STORM	6288.92 PR SANITARY	5.16
63	6291.67 PR WATER CROSSINGS	6288.19 PR SANITARY	3.48
64	6295.36 PR-STORM	6289.97 PR SANITARY	5.39
65	6292.51 PR WATER CROSSINGS	6289.24 PR SANITARY	3.27
66	6296.80 PR-STORM	6291.02 PR SANITARY	5.78
67	6293.35 PR WATER CROSSINGS	6290.29 PR SANITARY	3.06

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HILLPOINTE APARTMENTS AT PETERSON
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COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER A.2 SERVICES

SHEET SAN 5

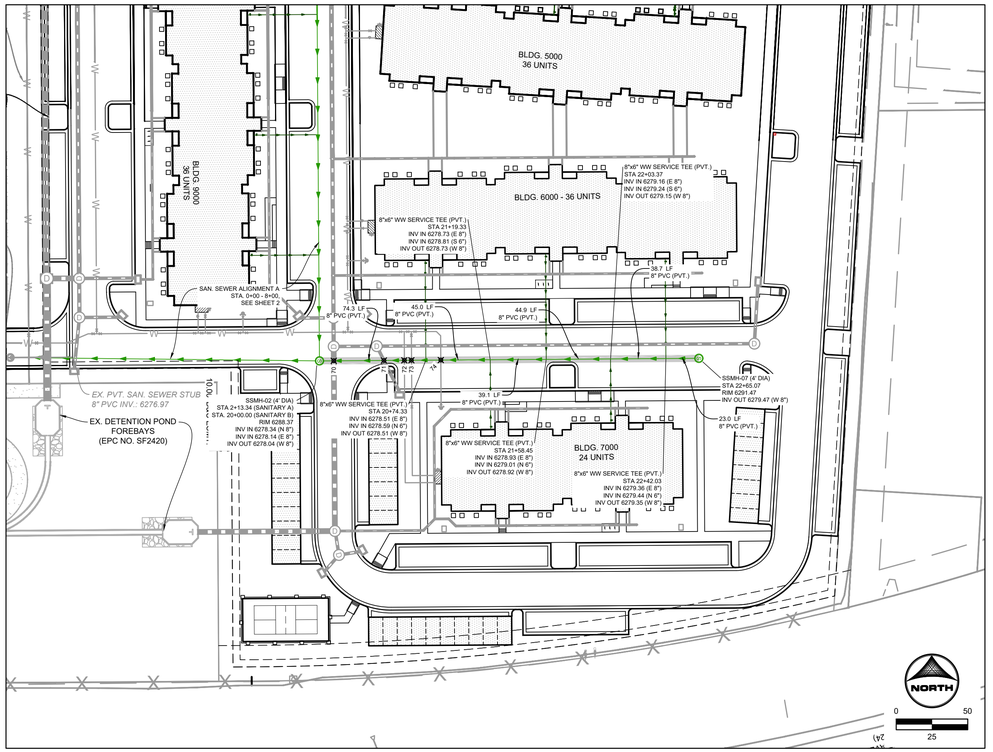
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WASTEWATER PLAN & PROFILES

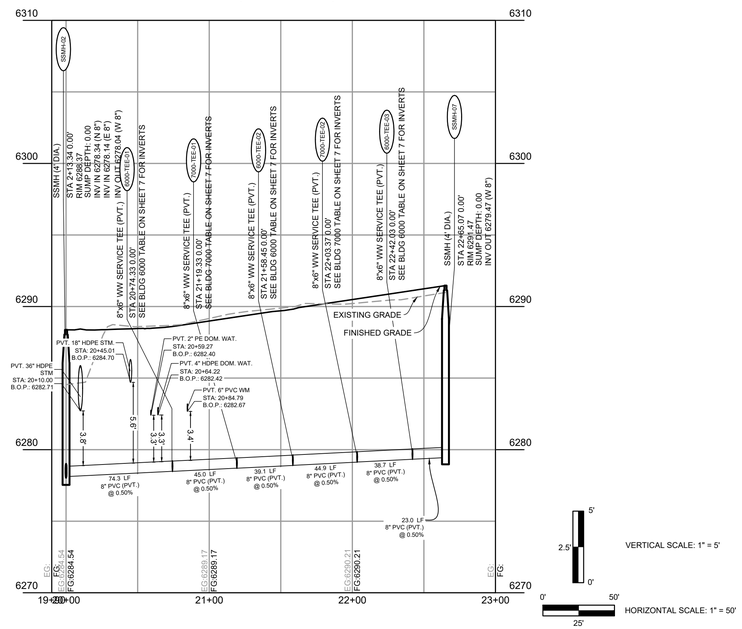
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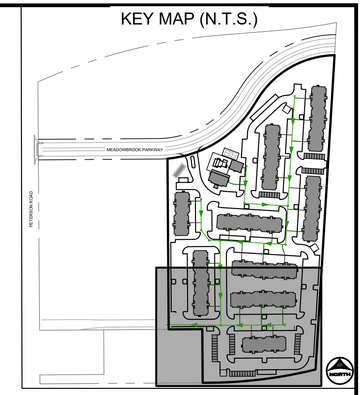
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POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
70	6282.70 PR-STORM	6278.88 PR SANITARY	3.82
71	6284.69 PR-STORM	6279.06 PR SANITARY	5.63
72	6282.40 PR WATER CROSSINGS	6279.13 PR SANITARY	3.27
73	6282.42 PR WATER CROSSINGS	6279.15 PR SANITARY	3.26
74	6282.67 PR WATER CROSSINGS	6279.25 PR SANITARY	3.41



PRIVATE SANITARY SEWER MAIN B

(STA. 20+00 - 22+75)





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HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER B MAIN PLAN & PROFILE

SHEET
SAN

6

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Sanitary Key Map

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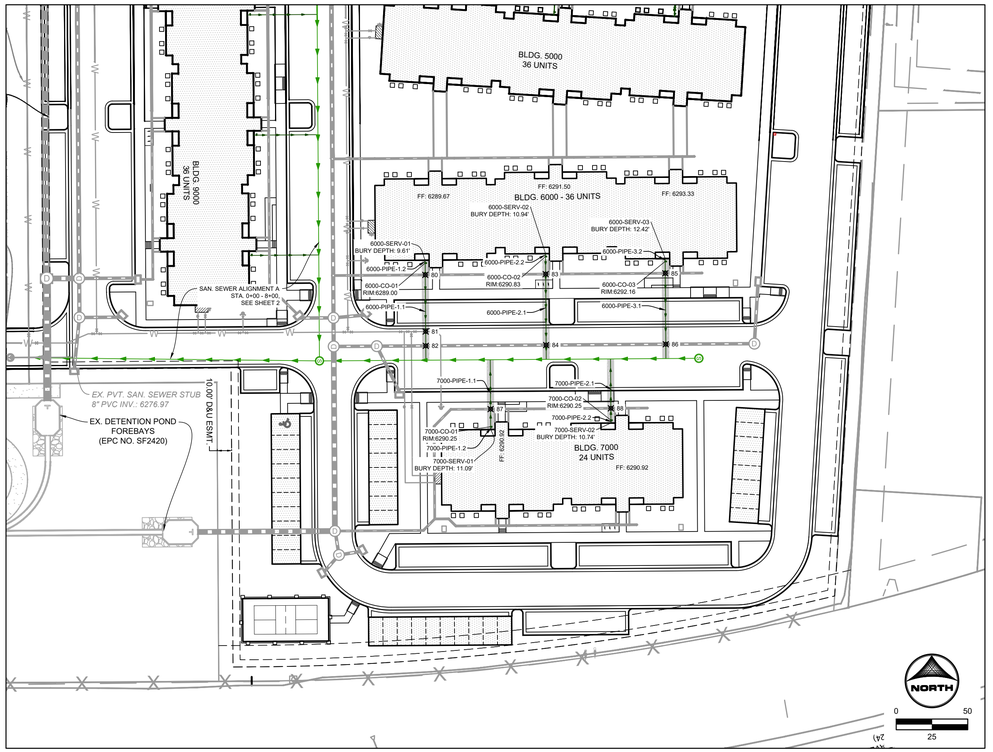
HILLPOINTE APARTMENTS AT PETERSON
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PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

APARTMENT BUILDING 6000 SANITARY SERVICES INFORMATION:

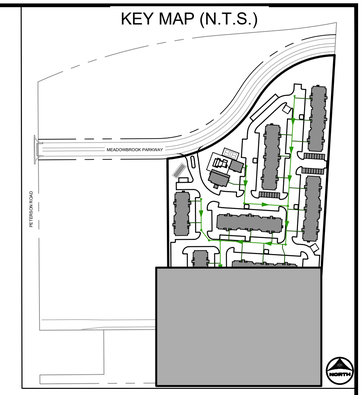
SANITARY FITTINGS TABLE			
FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
6000-CO-01	SANITARY B STA. 20+74.33 O/S: -67.87' L	6" CLEANOUT 6000-PIPE-1.2 INV IN (N) = 6280.02 6000-PIPE-1.1 INV OUT (S) = 6280.02	N:1368478.025 E:3229405.668
6000-SERV-01	SANITARY B STA. 20+74.33 O/S: -69.87' L	BLDG. 6000 - WW SERVICE #1 6000-PIPE-1.2 INV OUT (S) = 6280.06	N:1368480.024 E:3229405.655
6000-TEE-01	SANITARY B STA. 20+74.33 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-06c INV IN (E) = 6278.51 6000-PIPE-1.1 INV IN (N) = 6278.59 SSWR PIPE-06a INV OUT (W) = 6278.51	N:1368410.152 E:3229406.127
6000-CO-02	SANITARY B STA. 21+58.45 O/S: -71.87' L	6" CLEANOUT 6000-PIPE-2.2 INV IN (N) = 6280.52 6000-PIPE-2.1 INV OUT (S) = 6280.52	N:1368482.593 E:3229489.760
6000-SERV-02	SANITARY B STA. 21+58.45 O/S: -73.87' L	BLDG. 6000 - WW SERVICE #2 6000-PIPE-2.2 INV OUT (S) = 6280.56	N:1368484.593 E:3229489.746
6000-TEE-02	SANITARY B STA. 21+58.45 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-06g INV IN (E) = 6278.93 6000-PIPE-2.1 INV IN (N) = 6279.01 SSWR PIPE-06e INV OUT (W) = 6278.92	N:1368410.721 E:3229490.246
6000-CO-03	SANITARY B STA. 22+42.03 O/S: -67.87' L	6" CLEANOUT 6000-PIPE-3.2 INV IN (N) = 6280.87 6000-PIPE-3.1 INV OUT (S) = 6280.87	N:1368479.158 E:3229573.368
6000-SERV-03	SANITARY B STA. 22+42.03 O/S: -69.87' L	BLDG. 6000 - WW SERVICE #3 6000-PIPE-3.2 INV OUT (S) = 6280.91	N:1368481.158 E:3229573.354
6000-TEE-03	SANITARY B STA. 22+42.03 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-06k INV IN (E) = 6279.36 6000-PIPE-3.1 INV IN (N) = 6279.44 SSWR PIPE-06i INV OUT (W) = 6279.35	N:1368411.286 E:3229573.826

SANITARY SERVICES PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
6000-PIPE-1.1	6"	67.87'	2.10%	PVC SDR-26
6000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
6000-PIPE-2.1	6"	71.87'	2.10%	PVC SDR-26
6000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26
6000-PIPE-3.1	6"	67.87'	2.10%	PVC SDR-26
6000-PIPE-3.2	6"	2.00'	2.10%	PVC SDR-26



PRIVATE SANITARY SEWER MAIN B

(STA. 20+00 - 22+75)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. SANITARY SEWER AND STORM SEWER MANHOLE STRUCTURE SIZES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE TO BE FINALIZED AT CONSTRUCTION DRAWING LEVEL.
9. UTILITY CONFLICTS REQUIRING LOWERINGS ARE TO BE DETERMINED AT CONSTRUCTION DRAWING LEVEL.

APARTMENT BUILDING 7000 SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE			
FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
7000-TEE-01	SANITARY B STA. 21+19.33 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-06e INV IN (E) = 6278.73 7000-PIPE-1.1 INV IN (S) = 6278.81 SSWR PIPE-06c INV OUT (W) = 6278.73	N:1368410.456 E:3229451.124
7000-CO-01	SANITARY B STA. 21+19.33 O/S: 46.80' R	6" CLEANOUT 7000-PIPE-1.2 INV IN (S) = 6279.79 7000-PIPE-1.1 INV OUT (N) = 6279.79	N:1368363.661 E:3229451.440
7000-SERV-01	SANITARY B STA. 21+19.33 O/S: 48.79' R	BLDG. 7000 - WW SERVICE #1 7000-PIPE-1.2 INV OUT (N) = 6279.83	N:1368361.665 E:3229451.454
7000-TEE-02	SANITARY B STA. 22+03.37 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-06i INV IN (E) = 6279.16 7000-PIPE-2.1 INV IN (S) = 6279.24 SSWR PIPE-06g INV OUT (W) = 6279.15	N:1368411.024 E:3229535.164
7000-CO-02	SANITARY B STA. 22+03.37 O/S: 42.80' R	6" CLEANOUT 7000-PIPE-2.2 INV IN (S) = 6280.14 7000-PIPE-2.1 INV OUT (N) = 6280.14	N:1368368.229 E:3229535.453
7000-SERV-02	SANITARY B STA. 22+03.37 O/S: 44.79' R	BLDG. 7000 - WW SERVICE #2 7000-PIPE-2.2 INV OUT (N) = 6280.18	N:1368366.234 E:3229535.467

SANITARY SERVICES PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
7000-PIPE-1.1	6"	46.80'	2.10%	PVC SDR-26
7000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
7000-PIPE-2.1	6"	42.80'	2.10%	PVC SDR-26
7000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26

UTILITY CROSSINGS TABLE			
POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
80	6285.45 PR-STORM	6280.36 PR SANITARY	5.08
81	6283.08 PR WATER CROSSINGS	6279.53 PR SANITARY	3.55
82	6284.71 PR-STORM	6279.32 PR SANITARY	5.39
83	6286.72 PR-STORM	6280.78 PR SANITARY	5.94
84	6285.13 PR-STORM	6279.74 PR SANITARY	5.39
85	6288.38 PR-STORM	6281.21 PR SANITARY	7.17
86	6285.55 PR-STORM	6280.17 PR SANITARY	5.37
87	6285.97 PR-STORM	6280.06 PR SANITARY	5.91
88	6286.91 PR-STORM	6280.49 PR SANITARY	6.42

PCD FILE NO.: _____

DRAWN BY: CMD JOB DATE: 4/29/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\Utilities - Cherokee Metro District\CD-Sanitary PP

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER B SERVICES

SHEET
SAN
7

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL_TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Sanitary Key Map

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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WASTEWATER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

APARTMENT BUILDING 8000 SANITARY SERVICES INFORMATION:

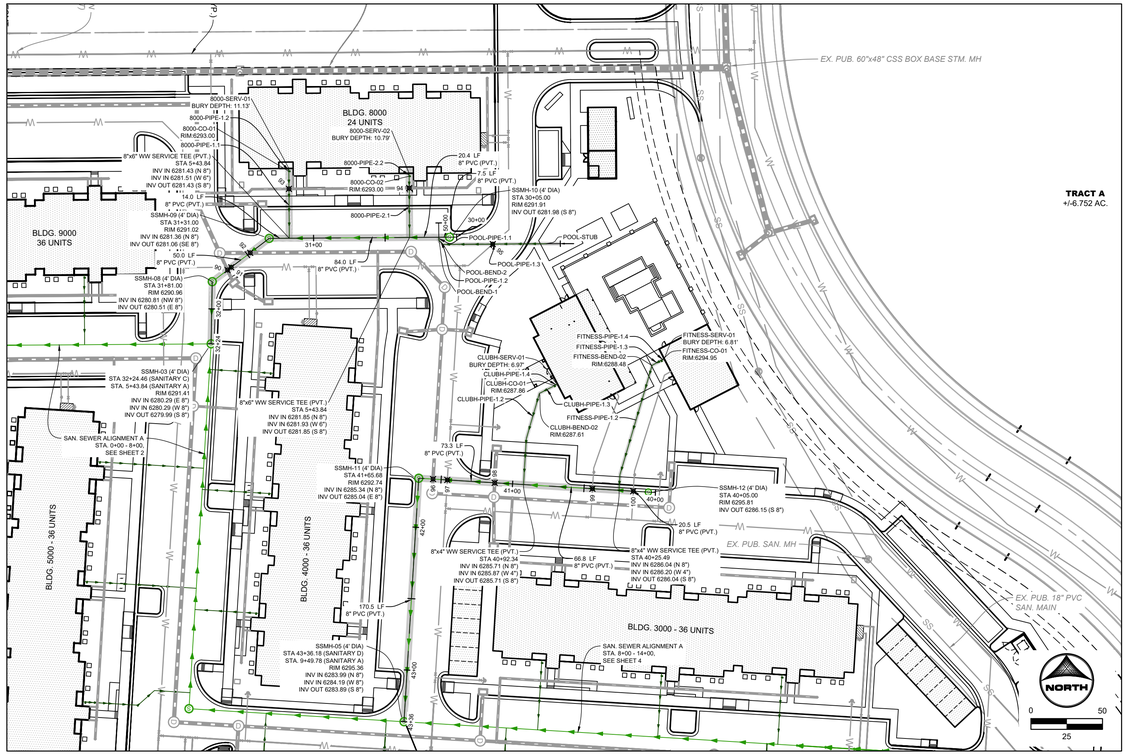
SANITARY FITTINGS TABLE			
FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
8000-TEE-01	SANITARY A STA. 5+43.84 O/S: -91.83' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-09c INV IN (N) = 6281.43 8000-PIPE-1.1 INV IN (W) = 6281.51 SSWR PIPE-09a INV OUT (S) = 6281.43	N:1368794.769 E:3229255.750
8000-CO-01	SANITARY A STA. 5+43.84 O/S: -132.27' L	6" CLEANOUT 8000-PIPE-1.2 INV IN (W) = 6282.49 8000-PIPE-1.1 INV OUT (E) = 6282.49	N:1368794.452 E:3229208.960
8000-SERV-01	SANITARY A STA. 5+43.84 O/S: -134.09' L	BLDG. 8000 - WW SERVICE #1 8000-PIPE-1.2 INV OUT (E) = 6282.53	N:1368794.439 E:3229206.960
8000-TEE-02	SANITARY A STA. 5+43.84 O/S: -157.36' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-09e INV IN (N) = 6281.85 8000-PIPE-2.1 INV IN (W) = 6281.93 SSWR PIPE-09c INV OUT (S) = 6281.85	N:1368878.808 E:3229255.182
8000-CO-02	SANITARY A STA. 5+43.84 O/S: -181.33' L	6" CLEANOUT 8000-PIPE-2.2 INV IN (W) = 6282.83 8000-PIPE-2.1 INV OUT (E) = 6282.83	N:1368878.519 E:3229212.391
8000-SERV-02	SANITARY A STA. 5+43.84 O/S: -182.61' L	BLDG. 8000 - WW SERVICE #2 8000-PIPE-2.2 INV OUT (E) = 6282.87	N:1368878.506 E:3229210.391

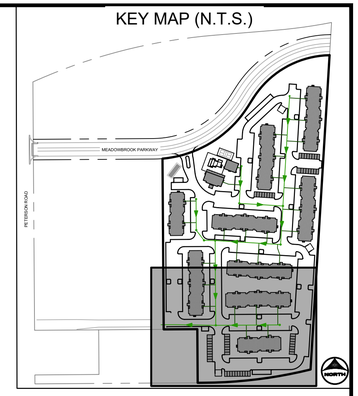
SANITARY SERVICES PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
8000-PIPE-1.1	6"	46.79'	2.10%	PVC SDR-26
8000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
8000-PIPE-2.1	6"	42.79'	2.10%	PVC SDR-26
8000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26

POOL DRAIN PIPES & STRUCTURES INFORMATION:

SANITARY FITTINGS TABLE			
FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
POOL-TEE-01	SANITARY E STA. 50+10.00 O/S: 0.00' L	8"x4" PVT. SAN. TEE (POOL) SSWR PIPE-09f INV IN (N) = 6281.94 POOL-PIPE-1.1 INV IN (E) = 6282.11 SSWR PIPE-09e INV OUT (S) = 6281.95	N:1368899.225 E:3229255.044
POOL-BEND-1	SANITARY E STA. 50+12.05 O/S: 0.00'	4"x45° HORIZ. BEND POOL-PIPE-1.2 INV IN (NE) = 6282.16 POOL-PIPE-1.1 INV OUT (W) = 6282.16	N:1368899.238 E:3229257.098
POOL-BEND-2	SANITARY E STA. 50+16.29 O/S: 0.00'	4"x45° HORIZ. BEND POOL-PIPE-1.3 INV IN (N) = 6282.25 POOL-PIPE-1.2 INV OUT (SW) = 6282.25	N:1368902.259 E:3229260.078
POOL-STUB	SANITARY E STA. 50+88.16 O/S: 0.00'	4" SAN. SERVICE STUB FOR POOL POOL-PIPE-1.3 INV OUT (S) = 6283.15	N:1368974.120 E:3229259.592

SANITARY SERVICES PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
POOL-PIPE-1.1	4"	2.05'	2.10%	PVC SDR-26
POOL-PIPE-1.2	4"	4.24'	2.10%	PVC SDR-26
POOL-PIPE-1.3	4"	71.86'	1.25%	PVC SDR-26



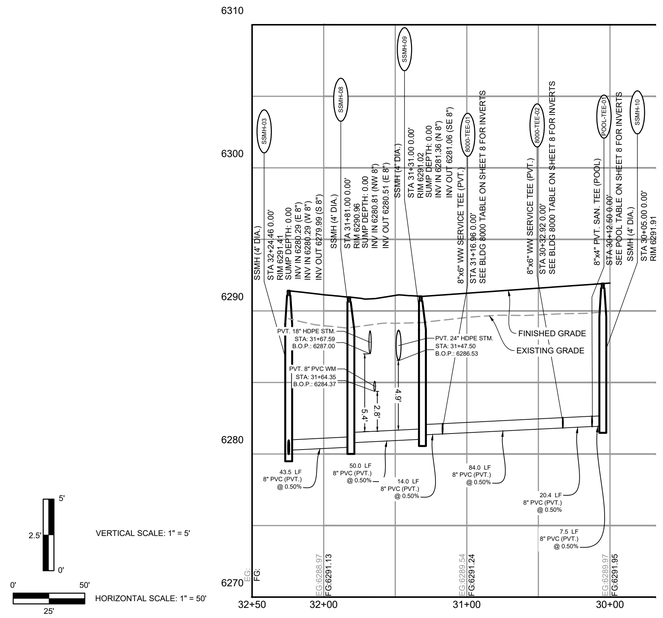


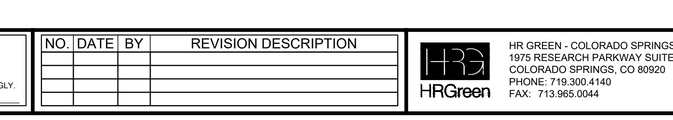
UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
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   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
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   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
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9. UTILITY CONFLICTS REQUIRING LOWERINGS ARE TO BE DETERMINED AT CONSTRUCTION DRAWING LEVEL.

PRIVATE SANITARY SEWER MAIN C

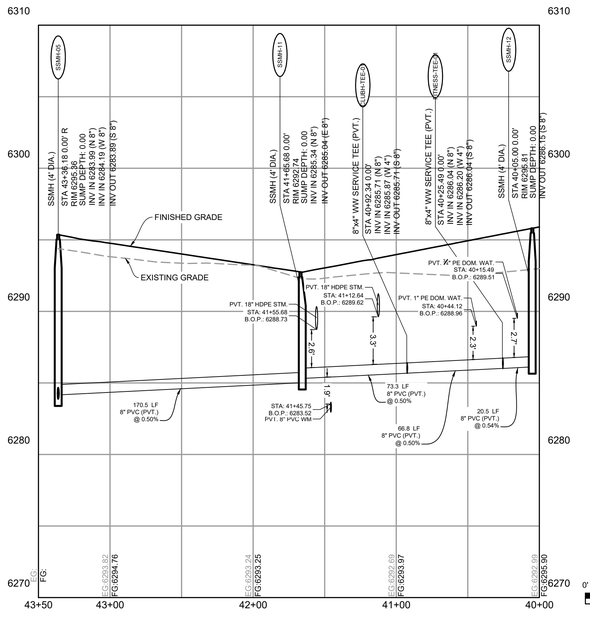
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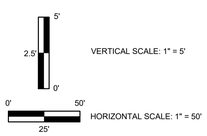




PRIVATE SANITARY SEWER MAIN D

(STA. 40+00 - 43+50)





UTILITY CROSSINGS TABLE			
POINT #	BOTTOM OF UPPER PIPE	TOP OF BOTTOM PIPE	CLEARANCE (FT)
90	6286.99 PR-STORM	6281.57 PR SANITARY	5.42
91	6284.37 PR WATER CROSSINGS	6281.59 PR SANITARY	2.79
92	6286.52 PR-STORM	6281.67 PR SANITARY	4.85
93	6287.09 PR-STORM	6282.76 PR SANITARY	4.33
94	6288.03 PR-STORM	6283.18 PR SANITARY	4.85
95	6286.78 PR WATER CROSSINGS	6283.04 PR SANITARY	3.75
96	6288.72 PR-STORM	6286.08 PR SANITARY	2.64
97	6285.41 PR SANITARY	6283.66 PR WATER CROSSINGS	1.75
98	6289.62 PR-STORM	6286.30 PR SANITARY	3.32
99	6288.96 PR WATER CROSSINGS	6286.64 PR SANITARY	2.32
100	6289.51 PR WATER CROSSINGS	6286.78 PR SANITARY	2.73

PCD FILE NO.:

DRAWN BY: CMD JOB DATE: 4/29/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\Utilities - Cherokee Metro District\CD-Sanitary PP

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER C & D PLAN & PROFILE

SHEET SAN 8

HR GREEN Xrefs: 00:XC-ROW; 00:XC-DSGN; 01:XC-ROW; 01:XC-DSGN; 00:XV-ROW; 00:XV-SURVEY; 00:XV-UTIL_TB_2a36_2502477-SDP; 01:XC-UTIL; 00:XC-UTIL; Sanitary Key Map

DOMBROWSKI, COLIN 4/30/2026 1:26 PM

HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WASTEWATER PLAN & PROFILES

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

APARTMENT BUILDING 2000 SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE

FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
2000-TEE-01	SANITARY A STA. 8+53.32 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-04c INV IN (N) = 6283.41 2000-PIPE-1.1 INV IN (E) = 6283.49 SSWR PIPE-04a INV OUT (S) = 6283.41	N:1368778.629 E:3229587.811
2000-CO-01	SANITARY A STA. 8+53.32 O/S: 62.79' R	6" CLEANOUT 2000-PIPE-1.2 INV IN (E) = 6284.81 2000-PIPE-1.1 INV OUT (W) = 6284.81	N:1368774.832 E:3229650.488
2000-SERV-01	SANITARY A STA. 8+53.32 O/S: 64.79' R	BLDG. 2000 - WW SERVICE #1 2000-PIPE-1.2 INV OUT (W) = 6284.85	N:1368774.711 E:3229652.484
2000-TEE-02	SANITARY A STA. 9+37.36 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) 2000-PIPE-2.1 INV IN (E) = 6283.91 SSWR PIPE-04e INV IN (N) = 6283.83 SSWR PIPE-04c INV OUT (S) = 6283.83	N:1368862.518 E:3229592.894
2000-CO-02	SANITARY A STA. 9+37.36 O/S: 66.79' R	6" CLEANOUT 2000-PIPE-2.2 INV IN (E) = 6285.31 2000-PIPE-2.1 INV OUT (W) = 6285.31	N:1368858.478 E:3229659.564
2000-SERV-02	SANITARY A STA. 9+37.36 O/S: 68.79' R	BLDG. 2000 - WW SERVICE #2 2000-PIPE-2.2 INV OUT (W) = 6285.35	N:1368858.357 E:3229661.560
2000-TEE-03	SANITARY A STA. 10+21.41 O/S: 0.00' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05c INV IN (N) = 6284.89 2000-PIPE-3.1 INV IN (E) = 6284.97 SSWR PIPE-05a INV OUT (S) = 6284.89	N:1368946.406 E:3229597.977
2000-CO-03	SANITARY A STA. 10+21.41 O/S: 62.79' R	6" CLEANOUT 2000-PIPE-3.2 INV IN (E) = 6286.29 2000-PIPE-3.1 INV OUT (W) = 6286.29	N:1368942.607 E:3229660.654
2000-SERV-03	SANITARY A STA. 10+21.41 O/S: 64.79' R	BLDG. 2000 - WW SERVICE #3 2000-PIPE-3.2 INV OUT (W) = 6286.33	N:1368942.486 E:3229662.651

SANITARY SERVICES PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
2000-PIPE-1.1	6"	62.79'	2.10%	PVC SDR-26
2000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
2000-PIPE-2.1	6"	66.79'	2.10%	PVC SDR-26
2000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26
2000-PIPE-3.1	6"	62.79'	2.10%	PVC SDR-26
2000-PIPE-3.2	6"	2.00'	2.10%	PVC SDR-26

APARTMENT BUILDING 3000 SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE

FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
3000-CO-01	SANITARY A STA. 10+43.32 O/S: -46.79' L	6" CLEANOUT 3000-PIPE-1.2 INV IN (W) = 6286.22 3000-PIPE-1.1 INV OUT (E) = 6286.22	N:1368971.108 E:3229552.595
3000-SERV-01	SANITARY A STA. 10+43.32 O/S: -48.79' L	BLDG. 3000 - WW SERVICE #1 3000-PIPE-1.2 INV OUT (E) = 6286.26	N:1368971.229 E:3229550.598
3000-TEE-01	SANITARY A STA. 10+43.32 O/S: 0.00' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05e INV IN (N) = 6285.16 3000-PIPE-1.1 INV IN (W) = 6285.24 SSWR PIPE-05c INV OUT (S) = 6285.16	N:1368968.278 E:3229599.302
3000-CO-02	SANITARY A STA. 11+27.36 O/S: -42.79' L	6" CLEANOUT 3000-PIPE-2.2 INV IN (W) = 6287.19 3000-PIPE-2.1 INV OUT (E) = 6287.19	N:1369054.754 E:3229561.671
3000-SERV-02	SANITARY A STA. 11+27.36 O/S: -44.79' L	BLDG. 3000 - WW SERVICE #2 3000-PIPE-2.2 INV OUT (E) = 6287.23	N:1369054.875 E:3229559.674
3000-TEE-02	SANITARY A STA. 11+27.36 O/S: 0.00' L	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05g INV IN (N) = 6286.21 3000-PIPE-2.1 INV IN (W) = 6286.29 SSWR PIPE-05e INV OUT (S) = 6286.21	N:1369052.165 E:3229604.386
3000-CO-03	SANITARY A STA. 12+11.40 O/S: -46.79' L	6" CLEANOUT 3000-PIPE-3.2 INV IN (W) = 6288.32 3000-PIPE-3.1 INV OUT (E) = 6288.32	N:1369138.884 E:3229562.761
3000-SERV-03	SANITARY A STA. 12+11.40 O/S: -48.79' L	BLDG. 3000 - WW SERVICE #3 3000-PIPE-3.2 INV OUT (E) = 6288.36	N:1369139.005 E:3229560.765
3000-TEE-03	SANITARY A STA. 12+11.40 O/S: 0.00' R	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-05k INV IN (N) = 6287.26 3000-PIPE-3.1 INV IN (W) = 6287.34 SSWR PIPE-05h INV OUT (S) = 6287.26	N:1369136.053 E:3229609.469

SANITARY SERVICES PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
3000-PIPE-1.1	6"	46.79'	2.10%	PVC SDR-26
3000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
3000-PIPE-2.1	6"	42.79'	2.10%	PVC SDR-26
3000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26
3000-PIPE-3.1	6"	46.79'	2.10%	PVC SDR-26
3000-PIPE-3.2	6"	2.00'	2.10%	PVC SDR-26

APARTMENT BUILDING 4000 SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE

FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
4000-CO-01	SANITARY A STA. 5+61.74 O/S: -42.79' L	6" CLEANOUT 4000-PIPE-1.2 INV IN (N) = 6281.45 4000-PIPE-1.1 INV OUT (S) = 6281.45	N:1368781.764 E:3229350.024
4000-SERV-01	SANITARY A STA. 5+61.74 O/S: -44.79' L	BLDG. 4000 - WW SERVICE #1 4000-PIPE-1.2 INV OUT (S) = 6281.49	N:1368783.760 E:3229350.145
4000-TEE-01	SANITARY A STA. 5+61.74 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-03c INV IN (N) = 6280.47 4000-PIPE-1.1 INV IN (N) = 6280.55 SSWR PIPE-03a INV OUT (W) = 6280.47	N:1368739.055 E:3229347.436
4000-CO-02	SANITARY A STA. 6+45.78 O/S: -46.79' L	6" CLEANOUT 4000-PIPE-3.4 INV IN (N) = 6282.37 4000-PIPE-2.1 INV OUT (S) = 6282.37	N:1368780.673 E:3229434.154
4000-SERV-02	SANITARY A STA. 6+45.78 O/S: -48.79' L	BLDG. 4000 - WW SERVICE #2 4000-PIPE-3.4 INV OUT (S) = 6282.41	N:1368782.669 E:3229434.274
4000-TEE-02	SANITARY A STA. 6+45.78 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-03g INV IN (E) = 6281.31 4000-PIPE-2.1 INV IN (N) = 6281.39 SSWR PIPE-03d INV OUT (W) = 6281.31	N:1368733.971 E:3229431.324
4000-CO-05	SANITARY A STA. 7+29.82 O/S: -42.79' L	6" CLEANOUT 4000-PIPE-5.4 INV IN (N) = 6283.13 4000-PIPE-5.1 INV OUT (S) = 6283.13	N:1368771.597 E:3229517.799
4000-SERV-03	SANITARY A STA. 7+29.82 O/S: -44.79' L	BLDG. 4000 - WW SERVICE #3 4000-PIPE-5.4 INV OUT (S) = 6283.17	N:1368773.594 E:3229517.920
4000-TEE-03	SANITARY A STA. 7+29.82 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-03k INV IN (E) = 6282.15 4000-PIPE-5.1 INV IN (N) = 6282.23 SSWR PIPE-03h INV OUT (W) = 6282.15	N:1368728.888 E:3229515.211

SANITARY SERVICES PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
4000-PIPE-1.1	6"	42.79'	2.10%	PVC SDR-26
4000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
4000-PIPE-2.1	6"	46.79'	2.10%	PVC SDR-26
4000-PIPE-3.4	6"	2.00'	2.10%	PVC SDR-26
4000-PIPE-5.1	6"	42.79'	2.10%	PVC SDR-26
4000-PIPE-5.4	6"	2.00'	2.10%	PVC SDR-26

APARTMENT BUILDING 5000 SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE

FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
5000-TEE-01	SANITARY A STA. 6+30.92 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-03d INV IN (E) = 6281.16 5000-PIPE-1.1 INV IN (S) = 6281.24 SSWR PIPE-03c INV OUT (W) = 6281.16	N:1368734.870 E:3229416.489
5000-CO-01	SANITARY A STA. 6+30.92 O/S: 72.45' R	6" CLEANOUT 5000-PIPE-1.2 INV IN (S) = 6282.76 5000-PIPE-1.1 INV OUT (N) = 6282.76	N:1368662.552 E:3229412.107
5000-SERV-01	SANITARY A STA. 6+30.92 O/S: 74.45' R	BLDG. 5000 - WW SERVICE #1 5000-PIPE-1.2 INV OUT (N) = 6282.80	N:1368660.555 E:3229411.986
5000-TEE-02	SANITARY A STA. 7+14.96 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-03h INV IN (E) = 6282.00 5000-PIPE-2.1 INV IN (S) = 6282.08 SSWR PIPE-03g INV OUT (W) = 6282.00	N:1368729.787 E:3229500.377
5000-CO-02	SANITARY A STA. 7+14.96 O/S: 76.45' R	6" CLEANOUT 5000-PIPE-2.2 INV IN (S) = 6283.69 5000-PIPE-2.1 INV OUT (N) = 6283.69	N:1368653.476 E:3229495.752
5000-SERV-02	SANITARY A STA. 7+14.96 O/S: 78.45' R	BLDG. 5000 - WW SERVICE #2 5000-PIPE-2.2 INV OUT (N) = 6283.73	N:1368651.480 E:3229495.631
5000-TEE-03	SANITARY A STA. 7+88.05 O/S: 0.00'	8"x6" WW SERVICE TEE (PVT.) SSWR PIPE-03m INV IN (E) = 6282.73 5000-PIPE-3.1 INV IN (S) = 6282.81 SSWR PIPE-03k INV OUT (W) = 6282.73	N:1368725.367 E:3229573.328
5000-BEND-3.1	SANITARY A STA. 7+88.06 O/S: 24.85' R	WW SERVICE 45° HORIZ. BEND 5000-PIPE-3.2 INV IN (SE) = 6283.33 5000-PIPE-3.1 INV OUT (N) = 6283.33	N:1368700.560 E:3229571.841
5000-BEND-3.2	SANITARY A STA. 7+99.00 O/S: 35.74' R	WW SERVICE 45° HORIZ. BEND 5000-PIPE-3.3 INV IN (S) = 6283.65 5000-PIPE-3.2 INV OUT (NW) = 6283.65	N:1368689.025 E:3229582.102
5000-CO-03	SANITARY A STA. 7+99.00 O/S: 72.45' R	6" CLEANOUT 5000-PIPE-3.4 INV IN (S) = 6284.42 5000-PIPE-3.3 INV OUT (N) = 6284.42	N:1368652.385 E:3229579.882
5000-SERV-03	SANITARY A STA. 7+99.00 O/S: 74.45' R	BLDG. 5000 - WW SERVICE #3 5000-PIPE-3.4 INV OUT (N) = 6284.46	N:1368650.389 E:3229579.761

SANITARY SERVICES PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
5000-PIPE-1.1	6"	72.45'	2.10%	PVC SDR-26
5000-PIPE-1.2	6"	2.00'	2.10%	PVC SDR-26
5000-PIPE-2.1	6"	76.45'	2.10%	PVC SDR-26
5000-PIPE-2.2	6"	2.00'	2.10%	PVC SDR-26
5000-PIPE-3.1	6"	24.85'	2.10%	PVC SDR-26
5000-PIPE-3.2	6"	15.44'	2.10%	PVC SDR-26
5000-PIPE-3.3	6"	36.71'	2.10%	PVC SDR-26
5000-PIPE-3.4	6"	2.00'	2.10%	PVC SDR-26

CLUBHOUSE SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE

FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
CLUBH-SERV-01	SANITARY D STA. 40+73.03 O/S: 71.48' R	CLUBHOUSE WW SERVICE CLUBH-PIPE-1.4 INV OUT (SE) = 6287.53	N:1368982.018 E:3229357.708
CLUBH-CO-01	SANITARY D STA. 40+74.84 O/S: 70.40' R	4" DBL. C.O. CLUBH-PIPE-1.4 INV IN (NW) = 6287.49 CLUBH-PIPE-1.3 INV OUT (SE) = 6287.49	N:1368980.148 E:3229358.674
CLUBH-BEND-02	SANITARY D STA. 40+85.12 O/S: 64.28' R	4"x45° HORIZ. BEND CLUBH-PIPE-1.3 INV IN (NW) = 6287.24 CLUBH-PIPE-1.2 INV OUT (E) = 6287.24	N:1368969.519 E:3229364.165
CLUBH-TEE-01	SANITARY D STA. 40+92.34 O/S: 0.00'	8"x4" WW SERVICE TEE (PVT.) SSWR PIPE-11b INV IN (N) = 6285.71 CLUBH-PIPE-1.1 INV IN (W) = 6285.87 SSWR PIPE-11a INV OUT (S) = 6285.71	N:1368958.427 E:3229427.891

SANITARY SERVICES PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
CLUBH-PIPE-1.2	4"	33.10'	2.10%	PVC SDR-26
CLUBH-PIPE-1.3	4"	11.96'	2.10%	PVC SDR-26
CLUBH-PIPE-1.4	4"	2.10'	2.10%	PVC SDR-26

FITNESS CENTER SANITARY SERVICES INFORMATION:

SANITARY FITTINGS TABLE

FITTING NAME	STATION & OFFSET	FITTING DETAILS	HORIZONTAL CONTROL (N/E)
FITNESS-SERV-01	SANITARY D STA. ??? O/S: ??? ???	FITNESS CENTER WW SERVICE FITNESS-PIPE-1.4 INV OUT (SE) = 6288.31	N:1369056.545 E:3229340.108
FITNESS-CO-01	SANITARY D STA. 40+01.41 O/S: 92.50' R	4" DBL. C.O. FITNESS-PIPE-1.4 INV IN (NW) = 6288.26 FITNESS-PIPE-1.3 INV OUT (SE) = 6288.26	N:1369054.787 E:3229341.060
FITNESS-BEND-02	SANITARY D STA. 40+07.70 O/S: 88.58' R	4"x45° HORIZ. BEND FITNESS-PIPE-1.3 INV IN (NW) = 6288.10 FITNESS-PIPE-1.2 INV OUT (E) = 6288.10	N:1369048.265 E:3229344.594
FITNESS-TEE-01	SANITARY D STA. 40+25.49 O/S: 0.00'	8"x4" WW SERVICE TEE (PVT.) SSWR PIPE-11c INV IN (N) = 6286.04 FITNESS-PIPE-1.1 INV IN (W) = 6286.20 SSWR PIPE-11b INV OUT (S) = 6286.04	N:1369025.148 E:3229431.934

SANITARY SERVICES PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
FITNESS-PIPE-1.2	4"	79.59'	2.10%	PVC SDR-26
FITNESS-PIPE-1.3	4"	7.42'	2.10%	PVC SDR-26
FITNESS-PIPE-1.4	4"	2.00'	2.10%	PVC SDR-26

PCD FILE NO.: _____

DRAWN BY: CMD JOB DATE: 4/29/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\Utilities - Cherokee Metro District\CD-Sanitary PP

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WASTEWATER SERVICES TABLES

SHEET SAN

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Sanitary Key Map

DOMBROWSKI, COLIN 4/30/2026 1:11 PM

HILLPOINTE APARTMENTS AT PETERSON
WATER CONSTRUCTION DRAWINGS

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

LEGAL DESCRIPTION:

LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1

WATER PLAN NOTES

THE CONTRACTOR SHALL NOTIFY CHOROKEE METRO DISTRICT INSPECTIONS OFFICE A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

GENERAL:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET *COLORADO SPRINGS UTILITIES' WATER LINE EXTENSION AND SERVICE STANDARDS* (*WATER L.E.S.S.*).
2. THE CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION.
3. CHEROKEE METRO DISTRICT DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, HYDRANTS, VALVES AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AND THE ENGINEER OF RECORD IMMEDIATELY.
4. NO TREES OR STRUCTURES ARE PERMITTED WITHIN FIFTEEN FEET (15') OF A PUBLIC WATER MAIN.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF HIS ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF COLORADO SPRINGS UTILITIES.
6. ALL FIELD STAKING SHALL COMPLY WITH THE *WATER L.E.S.S.*
7. THE CONTRACTOR SHALL MAKE THEIR BEST EFFORT TO ENSURE THAT WATER SERVICE TO ADJACENT PROPERTIES IS MAINTAINED DURING CONSTRUCTION.
8. CORROSION PROTECTION MEASURES SHALL COMPLY WITH THE *WATER L.E.S.S.*.
9. NO SERVICE TAPS WILL BE ALLOWED UNTIL THE MAIN IS EXTENDED TO THE NEXT MAIN-LINE VALVE.
10. NO SERVICE TAPS SHALL BE MADE UNTIL AUTHORIZATION HAS BEEN GRANTED BY THE CHEROKEE METRO DISTRICT INSPECTOR.
11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION AND THE STATIONING ON THE FIELD STAKES SHALL MATCH THE STATIONING ON THE PLANS.
12. FIELD MODIFICATIONS TO A FIRE SERVICE LINE OR FIRE HYDRANT DESIGN OR LOCATION MAY NEED TO BE APPROVED BY THE DESIGN ENGINEER, CIMARRON HILLS FIRE DEPARTMENT AND CHEROKEE METRO DISTRICT, AS REQUIRED BY THE INSPECTOR.
13. REUSE OR SALVAGE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE COLORADO SPRINGS UTILITIES INSPECTOR.
14. ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE *CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS MANUAL*.
15. ALL WATER SERVICE LINES SHOULD ENTER THE BUILDING WITHIN 3 FEET OF AN EXTERIOR WALL. EXPOSED WATER PLUMBING SHALL BE MINIMIZED INSIDE THE BUILDING PRIOR TO THE WATER METER AND/OR APPROVED BACKFLOW PREVENTION ASSEMBLY OR METHOD.

WATER PROJECT - SPECIFIC NOTES

	APPLICABLE	NOT APPLICABLE	
1.	☒	☐	ANY EXISTING STUBS AND APPURTENANCES THAT WILL NOT BE USED SHALL BE REMOVED AND REPLACED WITH AN ACCEPTABLE SECTION OF MAIN AT THE EXPENSE OF THE CONTRACTOR.
2.	☒	☐	A CONNECTION TO AN EXISTING STUB IS PROPOSED. CHEROKEE METRO DISTRICT DOES NOT GUARANTEE THE ACCURACY OF THE DEPTHS OR LOCATIONS OF EXISTING STUBS SHOWN ON ANY "AS-BUILT" DRAWINGS.
3.	☐	☒	A WATER STUB-OUT(S) IS/ARE PROPOSED. CHEROKEE METRO DISTRICT DOES NOT GUARANTEE THAT THE DESIGN OR INSTALLATION OF THE PROPOSED WATER STUB-OUT WILL MEET FUTURE DEVELOPMENT NEEDS.
4.	☐	☒	A WATER QUALITY PLAN HAS BEEN APPROVED FOR THIS PROJECT.

BUILDING DATA	
BUILDING SIZE (GROSS SF PER 36 UNIT BLDG)	13,800
TYPE OF CONSTRUCTION	TYPE V-A
LARGEST BUILDING (SF)	13,800
REQUIRED FIRE FLOW (GPM)	2,750
REQUIRED MINIMUM NUMBER OF HYDRANTS	3
AVERAGE DISTANCE BETWEEN HYDRANTS	450 Ft
MAXIMUM HOSE LAY DISTANCE	150 Ft
BUILDING SPRINKLERS INCLUDED?	YES

ACCORDING TO CALCULATIONS REVIEWED BY CHEROKEE METRO DISTRICT, THE THEORETICAL AVAILABLE FIRE FLOW AT EACH FIRE HYDRANT NODE UNDER MAXIMUM DAY DEMAND CONDITIONS WITH A 20 PSI RESIDUAL AND THE MAXIMUM STATIC PRESSURE AT BURY DEPTH (9') IS AS FOLLOWS (ACTUAL FIRE FLOW MAY VARY DUE TO VARIOUS PARAMETERS):

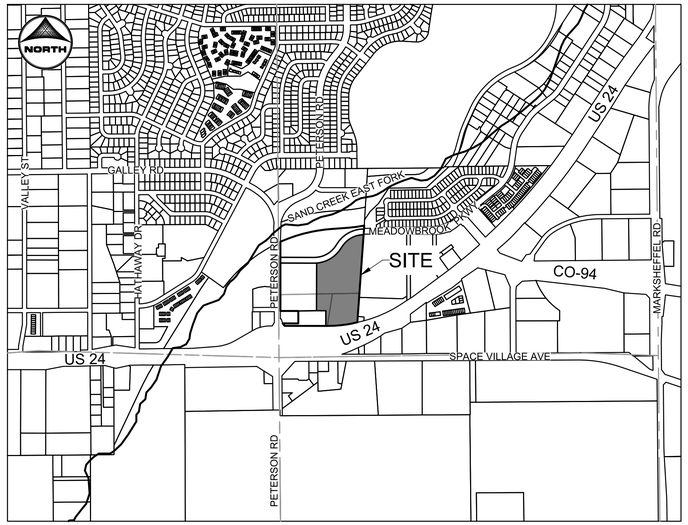
FIRE FLOW			
NODE	FIRE FLOW (GPM)	STATIC PRESSURE @MDD (PSI)	MAX STATIC PRESSURE @BURY DEPTH (PSI)

[1] THE MAXIMUM PRESSURE LISTED FOR EACH NODE DEFINES THE MAXIMUM DESIGN WORKING PRESSURE FOR MATERIAL SELECTION IN WATER L.E.S.S. TABLE 2-2. IF THE MAXIMUM DESIGN WORKING PRESSURE IS GREATER THAN 177 PSI, PVC SHALL NOT BE USED.

[2] BURY DEPTH IS ASSUMED TO BE 9 FEET BELOW THE HYDRANT FLANGE ELEVATION.

FIRE PROTECTION NOTES:

1. ALL APARTMENT BUILDINGS ARE CONSTRUCTION TYPE V-A. THE CLUBHOUSE, FITNESS, AND MAIL BUILDINGS ARE CONSTRUCTION TYPE V-B. THE GARAGE BUILDINGS ARE CONSTRUCTION TYPE V-B.
2. HYDRANT COVER SHOWN ON THIS PLAN IS FOR FIRE FLOW REQUIREMENTS OF 2,750 GPM FOR FOUR HOURS FOR ALL 36-UNIT APARTMENT BUILDINGS; 2,250 GPM FOR FOUR HOURS FOR 24-UNIT APARTMENT BUILDINGS; AND 1,500 GPM FOR 2 HOURS FOR THE CLUBHOUSE, FITNESS CENTER AND MAIL ROOM BUILDING. ALL APARTMENT BUILDINGS ARE SPRINKLERED. THE MAIL ROOM, CLUBHOUSE, AND FITNESS CENTER ARE NOT SPRINKLERED.
3. EACH 36-UNIT APARTMENT BUILDING REQUIRES THREE (3) HYDRANTS IN VICINITY FOR HOSE LAY DISTANCES. EACH 24-UNIT APARTMENT BUILDING REQUIRES TWO (2) HYDRANTS IN VICINITY TO HOSE LAY DISTANCES. THE CLUBHOUSE, FITNESS CENTER, AND MAIL BUILDINGS REQUIRE ONE (1) HYDRANT IN VICINITY.
4. HOSE LAY DISTANCES ARE 150 LF MAXIMUM PER CIMARRON HILLS FIRE DEPARTMENT STANDARDS.
5. HYDRANT-TO-TRUCK DISTANCES ARE A MAXIMUM OF 225 LF FOR APARTMENT BUILDING HYDRANTS AND 250 LF FOR THE CLUBHOUSE AND FITNESS CENTER.
6. ALL FIRE DEPARTMENT CONNECTIONS ARE WITHIN 100 LF OF A HYDRANT.
7. DEMONSTRATED ON THIS PLAN IS THE ACCESSIBILITY OF EACH DEFENSIBLE STRUCTURE BY AN EMERGENCY FIRE TRUCK APPARATUS.



VICINITY MAP
SCALE: 1" = 1000'

SHEET INDEX:

1 - WATER COVER
2 - WATER PLAN I
3 - WATER PLAN II

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
BARBED WIRE FENCE		
WOODEN FENCE		
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN	G	G
SANITARY SEWER		
STORM DRAIN		
LANDSCAPE DRAIN		
ROOF DRAIN		
WATER MAIN	W	W
SWALE		
TRAIL		
ADA ROUTE		
CURB & GUTTER		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		

STORM SEWER

	EXISTING	PROPOSED
MANHOLE	D	D
STORM INLET		
LANDSCAPE DOME INLETS		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER

CLEAN OUT		
MANHOLE	S	S
PLUG		

WATER

FIRE HYDRANT		
FIRE DEPT. CONNECTION	FDC	FDC
GATE VALVE		
MANHOLE	W	W
METER	M	M
TEE		
REDUCER		

DRY UTILITIES

ELECTRIC METER	EM
ELECTRIC PEDESTAL	E
ELECTRICAL CABINET	E
ELECTRIC VAULT	EV
ELECTRIC VEHICLE CHARGER	EV
FIBER OPTIC PULL BOX	F
FIBER OPTIC MANHOLE	FO
FIBER OPTIC PEDESTAL	F
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	FV
GAS METER	GM
GAS SIGN	
GAS VAULT	GV
TRANSFORMER	
LIGHT POLE	

MISCELLANEOUS

SIGN	
BOLLLARD	
ACCESSIBLE PARKING	
PARKING COUNT	10

PROJECT CONTACTS:

OWNER
JOVENCHI II, MARATHON HOLDINGS LLP,
JOHN VENEZIA ESTATE
4779 N. ACADEMY BOULEVARD
COLORADO SPRINGS, CO 80918
EMAIL: DEAN@VINTAGEDEV.COM
TELE: 719-491-2158

DEVELOPER
HILLPOINTE, LLC.
3773 CHERRY CREEK DRIVE NORTH
SUITE 801 EAST TOWER
DENVER, CO 80209
CONTACT: MARK FOSTER
EMAIL: MFOSTER@HILLPOINTE.COM

APPLICANT/OWNER'S REPRESENTATIVE
HR GREEN DEVELOPMENT, LLC.
1975 RESEARCH PKWY SUITE 160
COLORADO SPRINGS, CO 80921
TELE: (719) 394-2435
ATTN: COLLEEN MONAHAN
EMAIL: CMONAHAN@HRGREEN.COM

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HR GREEN DEVELOPMENT, LLC.
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COLORADO SPRINGS, CO 80921
TELE: (719) 394-2435
ATTN: RICHIE LYON, P.E.
EMAIL: RICHIE.LYON@HRGREEN.COM

PLANNING & LANDSCAPE ARCHITECTURE:
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GEOTECHNICAL ENGINEER
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127 GRAND VISTA
VONORE, TENNESSEE 37885
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ATTN: SAUL MOSLEHY, PHD.

TRAFFIC ENGINEER
SM ROCHA,LLC.
6 SOUTH TEJON STREET, SUITE 618
COLORADO SPRINGS, CO 80903
TELE: (719) 203-6639
ATTN: MIKE ROCHA
EMAIL: MIKE@SMROCHA.COM

SURVEYOR
MATRIX DESIGN GROUP
2435 RESEARCH PARKWAY, SUITE 300
COLORADO SPRINGS, CO 80920
TELE: (719) 575-0100

OWNER/DEVELOPER PLAN APPROVAL

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THEY SHALL, AT THEIR EXPENSE, BE SOLELY RESPONSIBLE FOR 1) THE INSTALLATION OF THE PROPOSED UTILITY INFRASTRUCTURE IN ACCORDANCE WITH THESE PLANS, AND 2) ALL DAMAGES AND DEFECTS ARISING FROM, OR RELATED TO, THE INSTALLATION, MAINTENANCE OR OPERATION OF THE PUBLIC UTILITY INFRASTRUCTURE FROM THE DATE OF PRELIMINARY ACCEPTANCE FOR PERIOD OF TWO YEARS, OR UNTIL FINAL ACCEPTANCE, WHICHEVER IS LATER.

THE UNDERSIGNED UNDERSTANDS THAT ALL PRIVATE UTILITY INFRASTRUCTURE, AS INDICATED ON THESE PLANS, SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE MAINTAINED BY THE OWNER, AS REQUIRED BY *COLORADO SPRINGS UTILITIES' LINE EXTENSION AND SERVICE STANDARDS*.

☒ PUBLIC WATER MAIN PROPOSED ☐ PUBLIC WASTEWATER MAIN PROPOSED ☒ PRIVATE WATER SERVICE LINE (<4") AND/OR PRIVATE WASTEWATER SERVICE LINE (<8")
☒ PRIVATE WATER MAIN PROPOSED ☐ PRIVATE WASTEWATER MAIN PROPOSED

SIGNED:_____ DATE:_____
OWNER/DEVELOPER

_____
OWNER/DEVELOPER (PRINT NAME)

DBA:_____

ADDRESS:_____

PHONE:_____

EMAIL:_____

CHEROKEE METROPLOITAN DISTRICT

WATER PLAN APPROVAL

THE CHEROKEE METROPOLITAN DISTRICT RECOGNIZES THE DESIGN PROFESSIONAL OF RECORD AS THE LICENSED ENGINEER HAVING RESPONSIBILITY FOR THE SUBMITTED DESIGN AND THE DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. AS SUCH, THE APPROVAL GRANTED HEREIN IS FOR THE CONSTRUCTION OF THE FACILITIES AS REPRESENTED ON THESE DOCUMENTS. APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE BELOW AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

APPROVED BY:_____ DATE:_____

CIMARRON HILLS FIRE DEPT. ACCEPTANCE

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO COLORADO SPRINGS UTILITIES' WATER LINE EXTENSION AND SERVICE STANDARDS.

THE NUMBER OF HYDRANTS AND HYDRANT LOCATIONS AS SHOWN ON THIS WATER PLAN ARE CORRECT AND ADEQUATE TO SATISFY THE FIRE PROTECTION REQUIREMENTS AS SPECIFIED BY THE CITY OF COLORADO SPRINGS FIRE DEPARTMENT.

SIGNED:_____
CHFD., DIVISION OF THE FIRE MARSHAL

CHFD PLAN REVIEW NO.: _____

NOTICE OF FIRE SERVICE LINE INTEGRITY TEST:

PRIOR TO ACCEPTANCE OF ANY FIRE SERVICE LINE BY THE CIMARRON HILLS FIRE DEPARTMENT:

- ALL FIRE SERVICE LINES SHALL BE HYDROSTATICALLY TESTED AND FLUSHED PER COLORADO SPRINGS FIRE DEPARTMENT REQUIREMENTS
- ALL ACCEPTANCE TESTING OF WATER SUPPLY SYSTEMS FOR FIRE PROTECTION SHALL BE WITNESSED BY AN APPROVED COLORADO SPRINGS FIRE DEPARTMENT REPRESENTATIVE

PRESSURE TEST
PRESSURIZE THE FIRE SERVICE LINE FROM THE POINT OF CONNECTION AT THE MAIN TO THE POINT OF CONNECTION TO THE SPRINKLER SYSTEM AT 200 PSI, OR 50 PSI ABOVE STATIC PRESSURE FOR A MINIMUM OF 2 HOURS. THIS TEST IS BEST PERFORMED BEFORE COMPLETELY BACKFILLING SO THAT ALL JOINTS ARE EXPOSED.

FLUSH TEST
THE FIRE SERVICE LINE SHALL BE FLUSHED AT PER NFPA 24 "STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES"

PCD FILE NO.: _____

HR GREEN Xrefs: VICINITY-MAP; TB_24x36_2502477-CD

DRAWN BY: CMD JOB DATE: 4/30/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/30/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\Utilities - Cherokee Metro District\CD-Water Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WATER COVER

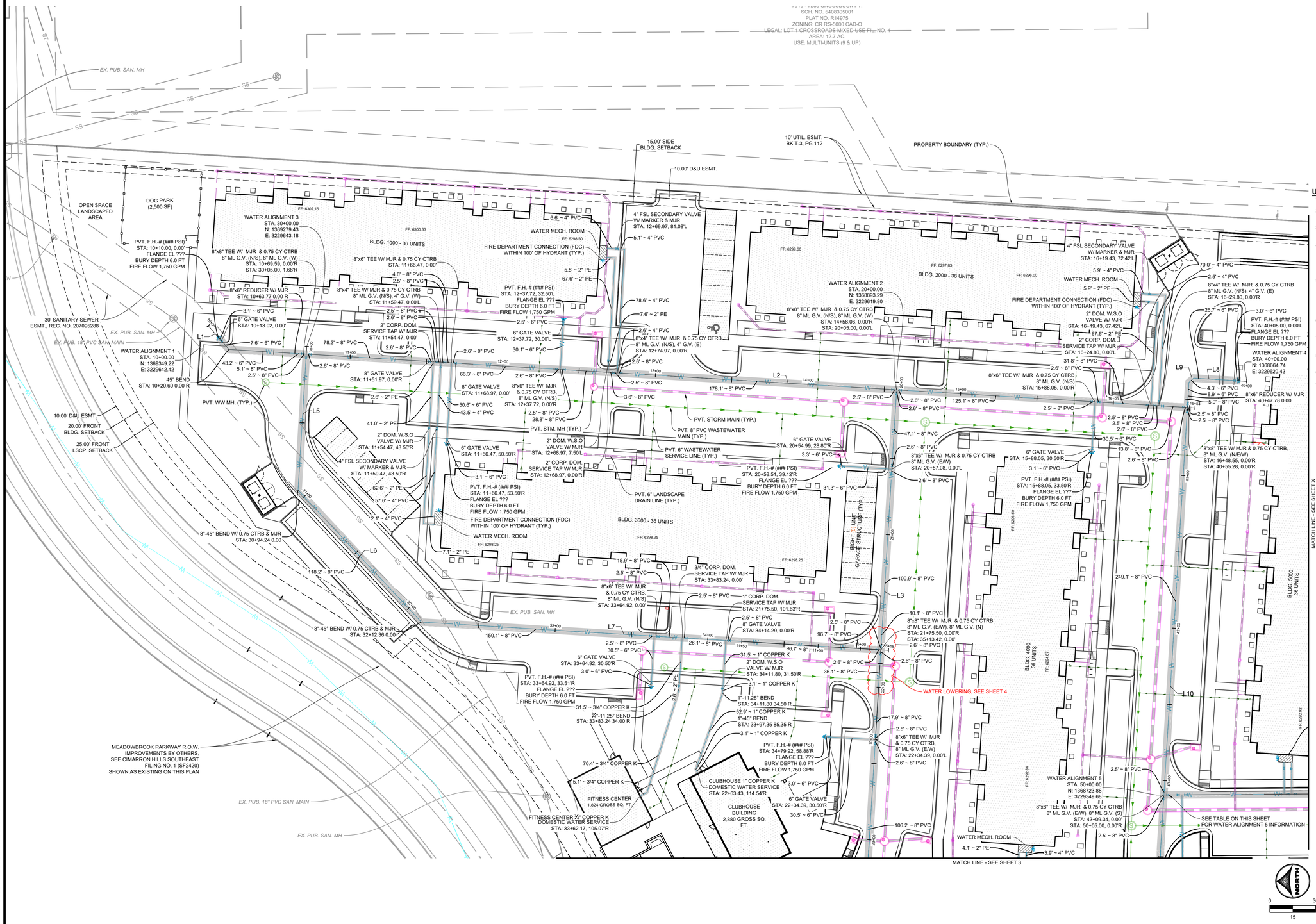
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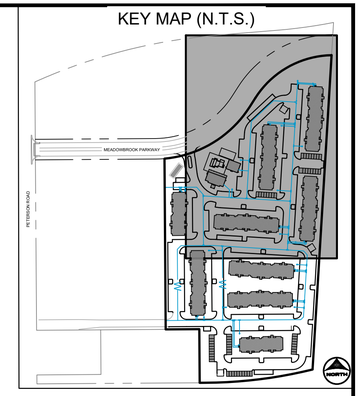
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WATER PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

SCH. NO. 5408305001
PLAT NO. R14975
ZONING: CR RS-5000 CAD-O
LEGAL: LOT 1 CROSSROADS MIXED-USE FIL NO. 4
AREA: 12.7 AC.
USE: MULTI-UNITS (9 & UP)



KEY MAP (N.T.S.)



UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.

WATER ALIGNMENT 1

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L1	20.60	S48°30'02.11"W	(3229656.73,1369343.94)	(3229641.28,1369330.31)
L2	632.95	S3°28'03.42"W	(3229641.28,1369330.31)	(3229602.99,1368698.52)

WATER ALIGNMENT 2

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L3	340.50	N86°31'56.81"W	(3229619.81,1368893.36)	(3229279.93,1368913.95)
L4	9.98	S89°30'45.98"W	(3229279.93,1368913.95)	(3229269.96,1368913.89)

WATER ALIGNMENT 3

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L5	94.24	N86°31'32.13"W	(3229643.20,1369279.43)	(3229549.14,1369285.14)
L6	118.12	S46°56'17.98"W	(3229549.14,1369285.14)	(3229462.84,1369204.49)
L7	306.06	S3°28'03.76"W	(3229462.84,1369204.49)	(3229444.33,1368898.98)

WATER ALIGNMENT 4

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L8	34.67	N3°28'03.38"E	(3229620.36,1368664.75)	(3229622.46,1368699.35)
L9	4.24	N41°31'56.62"W	(3229622.46,1368699.35)	(3229619.64,1368702.52)
L10	307.66	N86°31'56.62"W	(3229619.64,1368702.52)	(3229312.55,1368721.13)
L11	124.21	S89°36'07.72"W	(3229312.55,1368721.13)	(3229188.34,1368720.27)
L12	20.00	S44°36'45.29"W	(3229188.34,1368720.27)	(3229174.29,1368706.03)
L13	282.44	S0°23'14.71"E	(3229174.29,1368706.03)	(3229176.20,1368423.60)

WATER ALIGNMENT 5

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L14	299.10	S0°23'14.74"E	(3229349.68,1368723.88)	(3229351.70,1368424.78)

WATER ALIGNMENT 6

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L15	129.67	N89°36'45.98"E	(3229120.16,1368947.36)	(3229249.82,1368948.23)
L16	37.83	S41°31'56.62"E	(3229249.82,1368948.23)	(3229274.90,1368919.92)
L17	204.04	S0°23'14.02"E	(3229274.90,1368919.92)	(3229276.28,1368715.89)

WATER ALIGNMENT 7

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L18	253.28	N89°36'42.28"E	(3229170.17,1368428.56)	(3229423.45,1368430.27)
L19	16.47	N67°06'43.81"E	(3229154.99,1368422.15)	(3229170.17,1368428.56)
L20	26.28	N89°59'20.75"E	(3229128.71,1368422.15)	(3229154.99,1368422.15)

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PCD FILE NO.:

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CAD DATE: 4/30/2026		IF NOT ONE INCH ADJUST SCALE ACCORDINGLY.	
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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WATER PLAN I

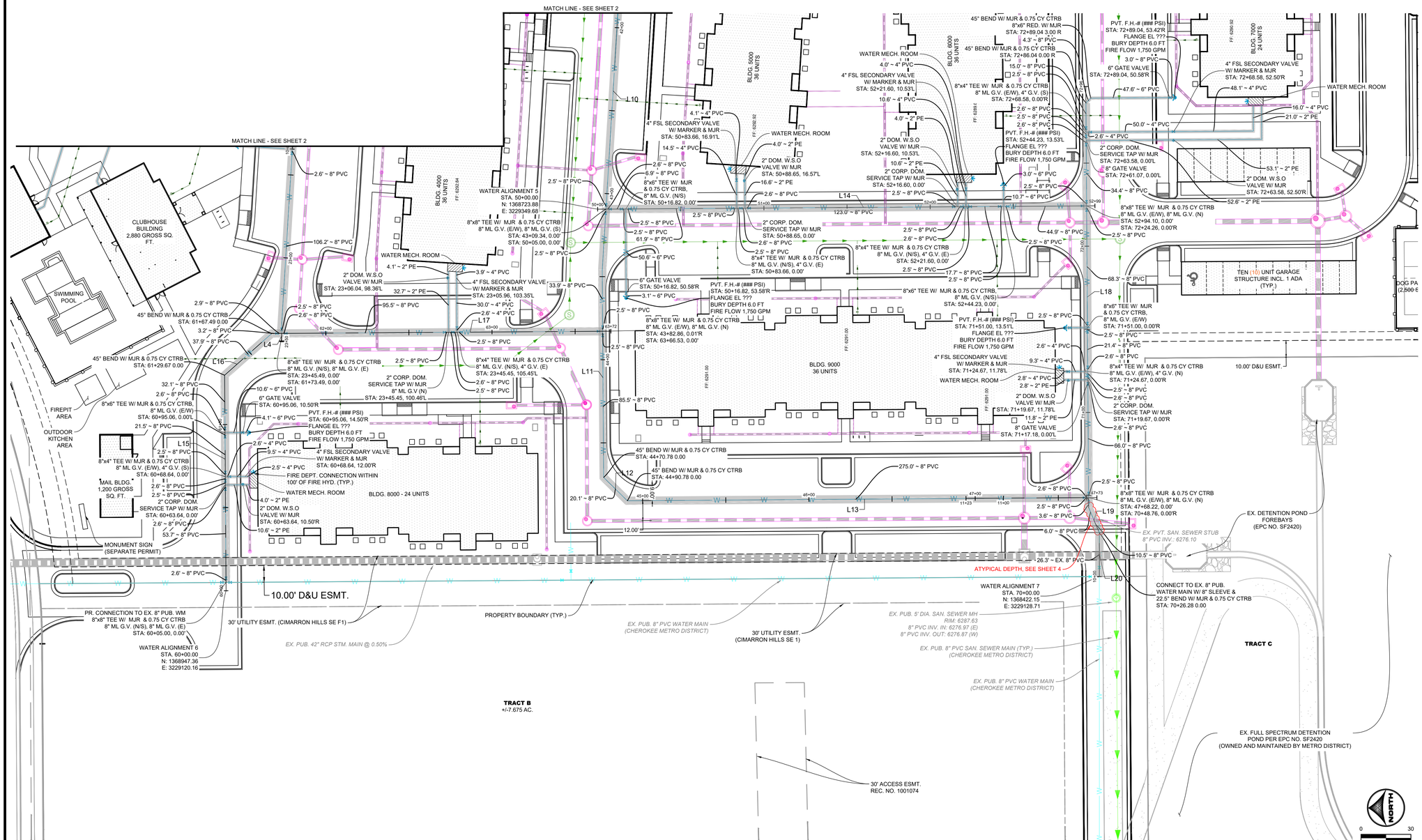
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HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL_TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Water Key Map

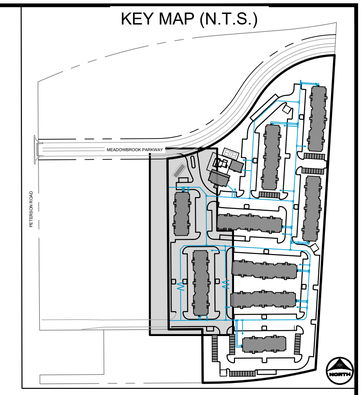
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HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WATER PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



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WATER ALIGNMENT 2

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L3	340.50	N86°31'56.81"W	(3229619.81,1368893.36)	(3229279.93,1368913.95)
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WATER ALIGNMENT 3

ALIGNMENT INFORMATION				
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WATER ALIGNMENT 5

ALIGNMENT INFORMATION				
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ALIGNMENT INFORMATION				
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L17	204.04	S0°23'14.02"E	(3229274.90,1368919.92)	(3229276.28,1368715.89)

WATER ALIGNMENT 7

ALIGNMENT INFORMATION				
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NO.	DATE	BY	REVISION DESCRIPTION

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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WATER PLAN II

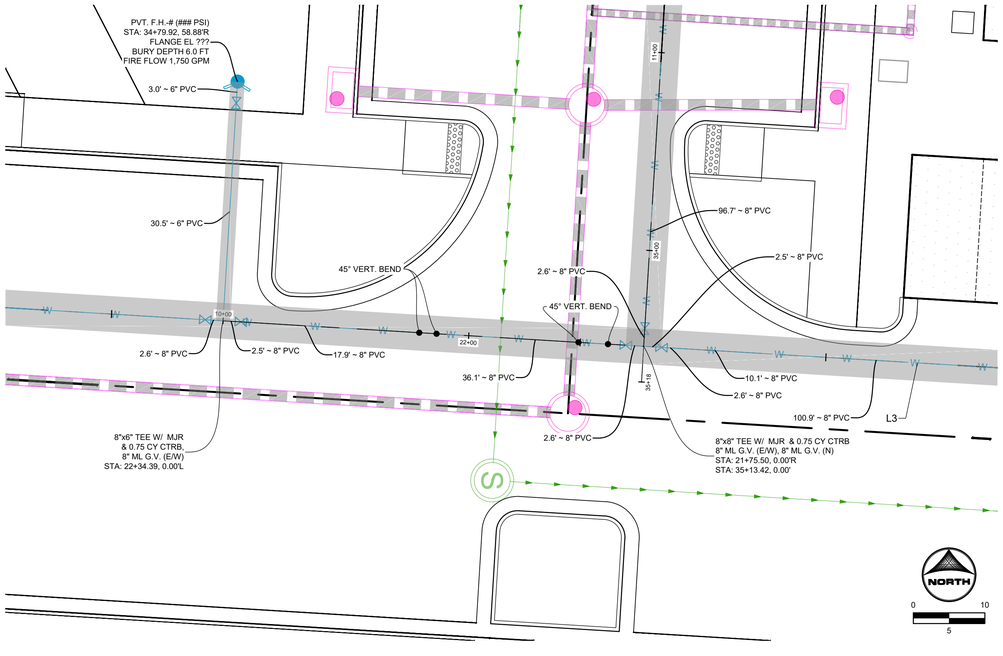
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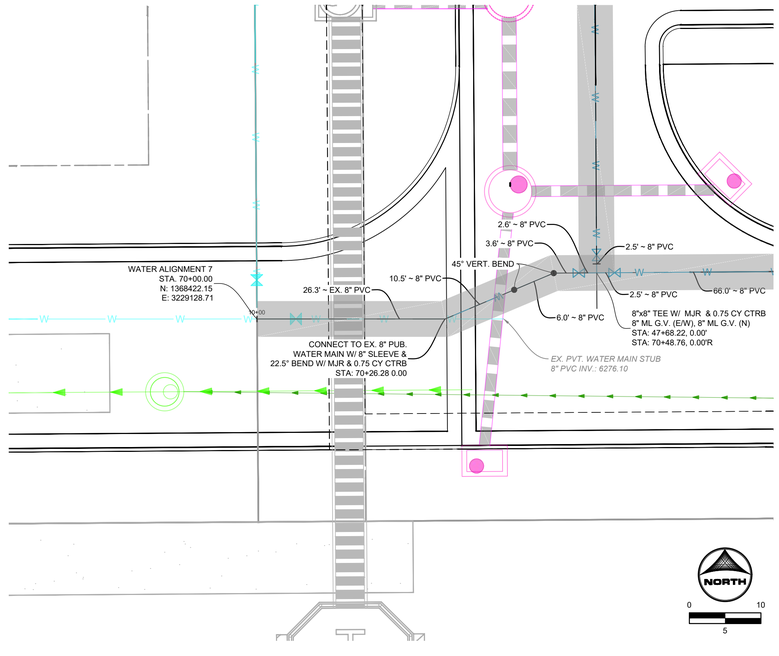
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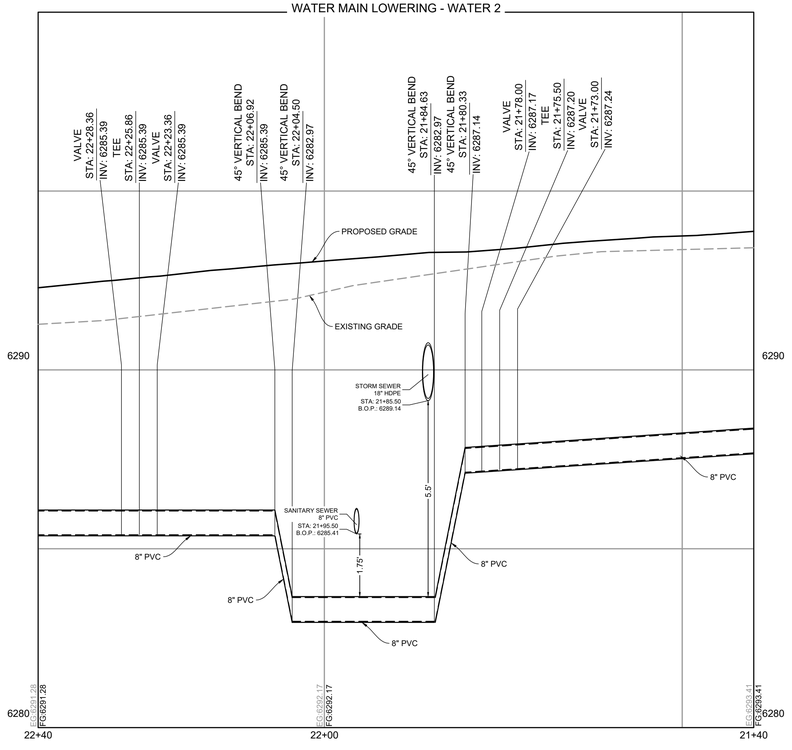
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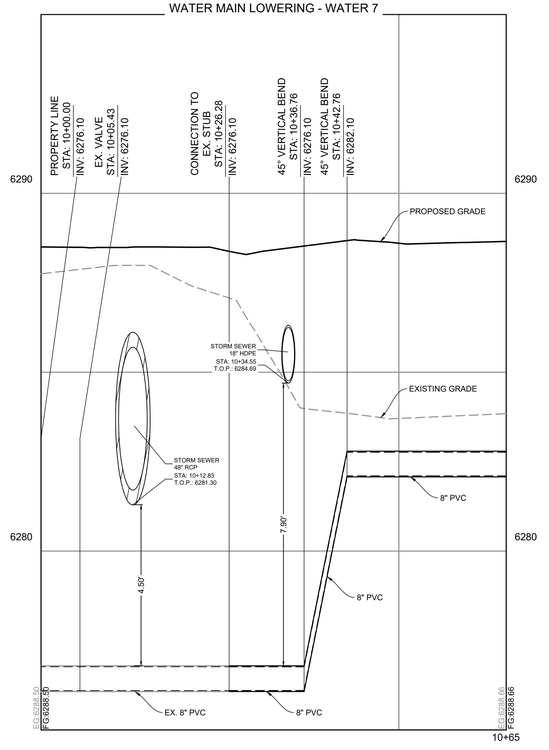
HILLPOINTE APARTMENTS AT PETERSON
CONSTRUCTION DRAWINGS - WATER PLAN

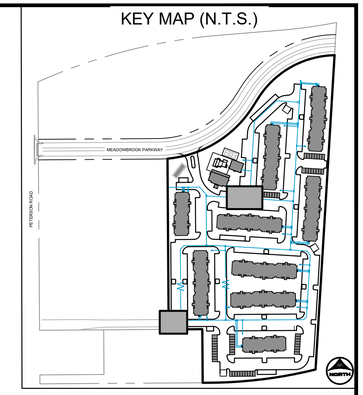
PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO











UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION, UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. ALL PRIVATE AND PUBLIC WATER MAIN SHOWN ON THESE PLANS HAVE A BURY DEPTH OF 5' MINIMUM AND 6' MAXIMUM FROM FINISHED GRADE. ANY LOWERINGS WITH DEPTHS BEYOND 6' ARE SHOWN WITH PROFILES TO DEMONSTRATE CLEARANCES.
9. ALL PRIVATE AND PUBLIC WATER MAIN HAS A MINIMUM 18" VERTICAL CLEARANCE FROM OTHER UTILITIES (OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE).
10. ALL APARTMENT BUILDINGS HAVE ONE MECHANICAL/WATER ROOM STRUCTURE ON THE SIDE WHICH HOUSES INTERNAL PLUMBING FOR THE 2" DOMESTIC WATER SERVICE AND THE 6" FIRE SERVICE LINE. EACH APARTMENT WATER ROOM HAS A 1.5" METER WITH BACKFLOW PREVENTER AS APPROVED BY CHEROKEE METRO DISTRICT.

WATER ALIGNMENT 1

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L1	20.60	S48°35'02.11"W	(3229656.73,1369343.94)	(3229641.28,1369330.31)
L2	632.95	S3°28'03.42"W	(3229641.28,1369330.31)	(3229602.99,1368898.52)

WATER ALIGNMENT 2

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L3	340.50	N86°31'56.81"W	(3229619.81,1368893.36)	(3229279.93,1368913.95)
L4	9.98	S89°36'45.98"W	(3229279.93,1368913.95)	(3229269.96,1368913.89)

WATER ALIGNMENT 3

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L5	94.24	N86°31'32.13"W	(3229643.20,1369279.43)	(3229549.14,1369285.14)
L6	118.12	S46°56'17.98"W	(3229549.14,1369285.14)	(3229462.84,1369204.49)
L7	306.06	S3°28'03.76"W	(3229462.84,1369204.49)	(3229444.33,1368898.98)

WATER ALIGNMENT 4

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L8	34.67	N3°28'03.38"E	(3229620.36,1368664.75)	(3229622.46,1368699.35)
L9	4.24	N41°31'56.62"W	(3229622.46,1368699.35)	(3229619.64,1368702.52)
L10	307.66	N86°31'56.62"W	(3229619.64,1368702.52)	(3229312.55,1368721.13)
L11	124.21	S89°36'07.72"W	(3229312.55,1368721.13)	(3229188.34,1368720.27)
L12	20.00	S44°36'45.29"W	(3229188.34,1368720.27)	(3229174.29,1368706.03)
L13	282.44	S0°23'14.71"E	(3229174.29,1368706.03)	(3229176.20,1368423.60)

WATER ALIGNMENT 5

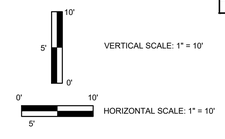
ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L14	299.10	S0°23'14.74"E	(3229349.68,1368723.88)	(3229351.70,1368424.78)

WATER ALIGNMENT 6

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L15	129.67	N89°36'45.98"E	(3229120.16,1368947.36)	(3229249.82,1368948.23)
L16	37.83	S41°31'56.62"E	(3229249.82,1368948.23)	(3229274.90,1368919.92)
L17	204.04	S0°23'14.02"E	(3229274.90,1368919.92)	(3229276.28,1368715.89)

WATER ALIGNMENT 7

ALIGNMENT INFORMATION				
LINE #	LENGTH (LF)	DIRECTION	N/E START	N/E END
L18	253.28	N89°36'42.28"E	(3229170.17,1368428.56)	(3229423.45,1368430.27)
L19	16.47	N67°06'43.81"E	(3229154.99,1368422.15)	(3229170.17,1368428.56)
L20	26.28	N89°59'20.75"E	(3229128.71,1368422.15)	(3229154.99,1368422.15)



PCD FILE NO.: _____

DRAWN BY: CMD	JOB DATE: 4/30/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: RDL	JOB NUMBER: 2502477	0 1"	
CAD DATE: 4/30/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\Utilities - Cherokee Metro District\CD-Water Plan			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS
WATER LOWERINGS

SHEET
WAT
4

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL; Water Key Map

Planning and Community Development Department
2880 International Circle
Colorado Springs, Colorado 80910
Phone: 719.520.6300
Fax: 719.520.6695
Website www.elpasoco.com

DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

PROJECT INFORMATION

Project Name :	Hillpointe Apartments at Peterson Road
Schedule No.(s) :	5408007001, 5408007004, 5408007008
Legal Description :	Lot 1 Cimarron Hills Southeast Mixed Use Filing No. 1

APPLICANT INFORMATION

Company :	Hillpointe, LLC.
Name :	Mark Foster
	☒ Owner ☐ Consultant ☐ Contractor
Mailing Address :	3773 Cherry Creek Drive North Denver, Colorado 80209
Phone Number :	303-910-5470
FAX Number :	
Email Address :	MFoster@hillpointe.com

ENGINEER INFORMATION

Company :	HR Green Development, LLC.
Name :	Richie Lyon, PE Colorado P.E. Number : 53921
Mailing Address :	1975 Research Parkway, Suite 160 Colorado Springs, Colorado 80921
Phone Number :	719-318-0871
FAX Number :	
Email Address :	Richie.Lyon@hrgreen.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

_____ _____

Signature of owner (or authorized representative) Date

Engineer's Seal, Signature
And Date of Signature

PPR-26-13

PCD File No. _____

Deviation requests are not for the LDC. Would need to talk to planners about obtaining a waiver for any LDC modifications.

Fill in section

ms, figures, and other documentation to clarify request)

A deviation from the standards of or in Section _____ of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

LDC 6.2.2
Permanent Structures within Landscape Buffer at south of the site. Permanent structures are detached garage structure and a pickleball court with fencing. These fall within the 25' landscape buffer at the south of the development, near Interstate 25 right-of-way. Alternative landscape is proposed for screening and to compensate for the encroachment of these structures.

ECM 2.4.1 Access Design Criteria
The primary shared access on Meadowbrook Parkway for Lot 1 and adjacent future development Tract B is approximately 550' feet from the intersection of Peterson Road and Meadowbrook Parkway which is within the 660' access spacing requirement from a minor arterial roadway.

Remove all write ups that have any reference to landscaping

State the reason for the requested deviation:

Siting in other locations of the site is difficult and pose noise pollution issues for residences. The pickleball court is to be sited away from apartments as well as existing and future residences and the location chosen is adjacent to a pond basin and an interstate which is already a high noise area due to high traffic volumes. The garage is also sited for the southernmost apartments for ease of access.

The shared primary access location is the most feasible location for an access to the Lot 1 and future development Tract B sites. The profile of Meadowbrook Parkway has slopes exceeding 5.0% for the roadway alignment area east of the proposed access location and an access to Lot 1 within that area would be on the inside of a horizontal curve which is not conducive to sight lines and distances. The safest and most practical location for the proposed primary shared access is the chosen location, approximately 550' east of the intersection of Meadowbrook Parkway and Peterson Road.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

Alternatives include near residences or the frontage by Meadowbrook Parkway for siting. However, there is a 30' utility easement owned by Colorado Springs Utilities that we have coordinated with and that easement is to remain clear of permanent structures for this project design. There will be future abandonment of CSU sanitary line in this easement that traverses the site, but the timing is such that this development will be built prior to that activity. Accommodations for the pickleball court and garage are requested with this site hardship in mind.

The siting of these permanent structures is only within the Landscape Buffer, not building setback. Therefore, alternative landscaping can be accommodated.

Alternatives were explored and discussed with El Paso County Planning, Engineering, and Public Works staff. Hardship to the subdivision for the extension of Meadowbrook Road is known due to the high elevation point from which it is being extended (east extent) and the horizontal curvature requirements that the County has granted a deviation for as a part of the final plat SF2420. The design of Meadowbrook Parkway limits feasible locations for access to Lot 1. A shared primary access to Lot 1 and future development Tract B was decided upon to reduce the number of access points and push its location as far east, away from the minor arterial roadway of Peterson Road, as possible.

PCD File No. _____

LIMITS OF CONSIDERATION
(At least one of the conditions listed below must be met for this deviation request to be considered.)

☐ The ECM standard is inapplicable to the particular situation.
☒ Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
☒ A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

Siting of the pickleball court of noise and spacing as well as the garage structure for spacing, is logically to the south of the site near Highway 24. Justification is met with minimal encroachment into only the Landscape Buffer (not the building setback) which can be overcome with alternative landscape design to compensate for the encroachment areas.

Topography for the design of Meadowbrook Parkway as well as horizontal curves that were required for its design limit feasibility for access along the roadway.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

The deviation will achieve the intended result by implementing alternative landscaping of the buffer area that is encroached upon with additional plantings to screen this area.

The deviation for the roadway access point will achieve the intended result by following recommendations made in the Traffic Impact Study as a result of directing traffic to this chosen location.

Remove all items that pertain to landscaping

The deviation will not adversely affect safety or operations.

The deviation will not adversely affect safety or operations. The request is for minimal encroachment into the landscape buffers and there is no violation of building setbacks.

Provide how the location of the access will not affect safety.

PCD File No. _____

The deviation will not adversely affect maintenance and its associated cost.

The deviation will not adversely affect maintenance and its associated cost as these improvements are private.

Explain how it will not affect maintenance.

The deviation will not adversely affect aesthetic appearance.

The deviation will not adversely affect aesthetic appearance as alternative landscaping is proposed to meet criteria. Similarly, the primary access will not be adversely affected in its aesthetic appearance with a deviation for a shorter spacing distance.

State how aesthetics will not be affected.

The deviation meets the design intent and purpose of the ECM standards.

The deviation meets the design intent and purpose of the ECM standards by still accommodating a suitable landscape buffer in this area. The deviation for access spacing meets the design intent and purpose of the ECM standards by providing access at a safe location with sufficient sight line distances.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

The deviation meets the control measure requirements of Par I.E.3 and Pari I.E.4 of the County's MS4 permit, as applicable. WQ and detention standards are met for the development as a whole and this deviation does not violate those requirements.

PCD File No. _____

REVIEW AND RECOMMENDATION:

Fill in section

Approved by the ECM Administrator
This request has been determined to have met the criteria for approval. A deviation from Section _____ of the ECM is hereby granted based on the justification provided.

Denied by the ECM Administrator
This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

ECM ADMINISTRATOR COMMENTS/CONDITIONS:

PCD File No. _____

1.1. PURPOSE

The purpose of this resource is to provide a form for documenting the findings and decision by the ECM Administrator concerning a deviation request. The form is used to document the review and decision concerning a requested deviation. The request and decision concerning each deviation from a specific section of the ECM shall be recorded on a separate form.

1.2. BACKGROUND

A deviation is a critical aspect of the review process and needs to be documented to ensure that the deviations granted are applied to a specific development application in conformance with the criteria for approval and that the action is documented as such requests can point to potential needed revisions to the ECM.

1.3. APPLICABLE STATUTES AND REGULATIONS

Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

1.4. APPLICABILITY

All provisions of the ECM are subject to deviation by the ECM Administrator provided that one of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

1.5. TECHNICAL GUIDANCE

The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

1.6. LIMITS OF APPROVAL

Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

1.7. REVIEW FEES

A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.

Provide exhibit showing access location and include sight distances.

PCD File No. _____

HRGreen

HRGREEN.COM

Final Drainage Report
for Hillpointe Apartments at Peterson

April 2026

HR Green Project No: 2502477

Prepared For:

Hillpointe, LLC.

3773 Cherry Creek Drive North, Suite 801 East Tower

Denver, CO 80209

Contact: Mark Foster

mfoster@hillpointe.com

Prepared By:

HR Green Development, LLC

1975 Research Parkway, Suite 160

Contact: Richie Lyon, PE

Richie.Lyon@hrgreen.com

(719) 318-0871

PCD File No. PPR 2613

Table of Contents

Table of Contents 1
Engineer's Statement 3
Developer's Statement 3
El Paso County: 3
I. General Purpose, Location and Description 4
a. Purpose 4
b. Location 4
c. Description of Existing Conditions 4
d. Description of Proposed Conditions 4
e. Floodplain Statement 5
II. Drainage Basins and Subbasins 5
a. Major Basin Description 5
b. Existing Subbasin Description 5
c. Proposed Subbasin Description 6
d. Downstream Drainage 10
III. Drainage Design Criteria 10
a. Development Criteria Reference 10
b. Hydrologic Criteria 10
c. Hydraulic Criteria 10
IV. Drainage Facility Design 11
a. General Concept 11
b. Basin Design Criteria 11
c. Water Quality & Detention 11
d. Major Drainageways 12
e. Grading and Erosion Control Plan 12
f. Four Step Method to Minimize Adverse Impacts of Urbanization 12
g. Drainage and Bridge Fees 14
h. Hydraulic Grade Line Calculations 14
V. Summary 14
VI. Variances 14
VII. Drawings 15

VIII. References 15

Appendices

A. Vicinity Map, FEMA Map, NRCS Soil Survey

B. Hydrologic Analysis

C. Hydraulic Analysis

D. Drainage Maps

Engineer's Statement

This report and plan for the drainage design of the development, Hillpointe Apartments at Peterson, was prepared by me (or under my direct supervision) and is correct to the best of my knowledge and belief. Said report and plan has been prepared in accordance with the *El Paso County Drainage Criteria* Manual and is in conformity with the master plan of the drainage basin. I understand that El Paso County does not and will not assume liability for drainage facilities designed by others. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.

_____ _____

Richie Lyon, PE — Date

State of Colorado No. 53921

For and on behalf of HR Green Development, LLC

Developer's Statement

I, the developer, have read and will comply with all of the requirements specified in this drainage report and plan.

_____ _____

Hillpointe, LLC — Date

El Paso County:

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual, Volumes 1 and 2 and the Engineering Criteria Manual, as amended.

_____ _____

Joshua J. Palmer, P.E. — Date

County Engineer/ECM Administrator

I. General Purpose, Location and Description

a. Purpose

This Final Drainage Report (FDR) aims to identify specific solutions to drainage concerns resulting from the development of the site. The report outlines the onsite and offsite drainage patterns, details the existing and proposed storm infrastructure, and proposes a solution for effectively routing developed stormwater to an adequate detention facility. An existing full-spectrum detention pond within the subdivision (see PCD File SF2420) is proposed as the permanent control measure. Hydrologic and hydraulic calculations for onsite areas, along with an assessment of the existing downstream stormwater infrastructure, are provided to demonstrate compliance with County stormwater criteria and ensure that existing infrastructure is not negatively impacted by this development.

b. Location

The Hillpointe Apartments at Peterson, legally described as Lot 1 Cimarron Hills Southeast Mixed Use Filing No. 1, totals 14.09 acres and referred to as 'the site' herein, is a portion of the west half of the southwest quarter of Section 8, Township 14 South, Range 65 West of the 6th P.M., El Paso County, Colorado. The subdivision is described in the *Cimmaron Hills Southeast Mixed Use Filing No. 1 Final Drainage Report* prepared by Matrix Design Group dated September 2025. The site is bound to the north by the 80' wide public right-of-way of Meadowbrook Parkway and across the roadway is Tract A which is designated as future development. To the east of the site is the Aura Crossroads apartment complex, legally described as Lot 1 Crossroads Mixed Use Filing No. 1. To the south of the site is the public right-of-way of US Highway 24 which varies in width. Adjacent to the southwest corner of the site is Tract C, which is dedicated to detention facilities. Immediately west of the site is Tract B which is designated as future development and further west is the 100' wide public right-of-way of Peterson Road. There are no existing or proposed public roadways internal to the site. All of county assessor parcel number 5408007004 and portions of parcel numbers 5408007008 and 5408007001 are within the development limits. The property is not within a Streamside Zone or Hillside Zone. There are no no-build or preservation easements or areas within the platted parcel.

A vicinity map is presented in Appendix A.

c. Description of Existing Conditions

The undeveloped site (zoned RM-30) contains few site improvements which include unpaved trails, abandoned softball fields, and a small concrete pad. The overall on-site imperviousness is approximately 2% and the site is sparsely vegetated by grass, shrubs, and trees. There are no structures or impervious areas on site. The site generally slopes from the northeast down to the southwest.

The site consists of 88.3% Blakeland loamy sand and 11.7% Blendon sandy loam per the USDA, NRCS web soil survey. This soil is categorized as Hydrologic Soil Group A and Group B. The NRCS soil survey is presented in Appendix A.

d. Description of Proposed Conditions

The developed site is to include apartment buildings, garages, recreational facilities, paved drive aisles and parking areas, and private utilities and storm sewer network. The nine apartment buildings are spread throughout the site and parking spaces are provided along drive aisles. Landscape areas surround apartment buildings and are dispersed throughout the islands in parking areas. Screening along adjacent rights-of-way is

provided by landscape areas at the northern and southern edges of the site. The site is accessed by an entry on the adjacent public right-of-way of Meadowbrook Parkway to the north and an entry originating from the public right-of-way of Peterson Road to the west.

The on-site private storm includes private Type R sump and on-grate grate inlets within the drive aisles and parking areas. Roof drains and dome inlets are tied directly into secondary drainage systems surrounding apartment buildings which connect to the main storm system. The storm system is made up of two main branches that ultimately outfall into forebays within the full spectrum detention pond within Tract C. The existing private water quality and detention pond (by others, SF2420) includes an outlet structure with orifice plate and micropool that is designed to provide detention and release the stormwater at or below historic rates.

The entirety of the 14.09 acre site will be disturbed for development. Offsite disturbances for the development include connecting the site to existing public utilities owned and maintained by Cherokee Metropolitan District within Tract B and the shared entry within the Meadowbrook Parkway right-of-way.

e. Floodplain Statement

Based on FEMA Firm map 08041C0754G dated December 7, 2018, the site is Zone X, which are areas determined to be outside the 0.2% annual chance flood. No portion of the site is within a designated FEMA floodplain. The site is approximately 145' away from a FEMA Flood Zone AE at the nearest boundary, located to the west and north of the site. The nearby flood zone has no bearing on the design within Lot 1.

A map is provided in Appendix A.

II. Drainage Basins and Subbasins

EPC has not adopted the newer version of the DBPS

a. Major Basin Description

The site's drainage characteristics were previously studied in the following reports:

1. *Sand Creek Drainage Basin Planning Study Final Report* dated January 2021, prepared by Stantec, HDR, Dewberry
2. *Cimmaron Hills Southeast Mixed Use Filing No. 1 Final Drainage Report,* dated September 2025, prepared by Matrix Design Group

The site is located within the Sand Creek East Fork Subbasin in the Sand Creek Drainage Basin. The East Fork Sand Creek is tributary to Sand Creek which ultimately drains to Fountain Creek. Site flows released from the offsite existing private full spectrum detention pond run west along the public roadside ditch on the north side of US Highway 24 Off Ramp to an inlet that conveys the flows under Peterson Road and to East Fork Sand Creek. Per the FDR for Cimmaron Hills Mixed Use Filing No. 1, the full spectrum detention pond releases flows from the site at or below historic rates and the downstream East Fork Sand Creek is stable with no recommendations for improvement in the DBPS. Therefore, no downstream infrastructure or detention alterations are required.

b. Existing Subbasin Description

The existing subbasins were delineated based on existing drainage patterns. The on-site basins are comprised of undeveloped land. 2% imperviousness was assumed for each on site basin for analysis of historical flow.

The following basins and sub-basins have been delineated.

Existing Basin A has a tributary area of **0.30 acres with a minor (5-year event) runoff of 0.11 cfs and major (100-year event) runoff of 0.71 cfs**. The basin lies on the western edge of the site. Within the basin is an existing storm system and associated easement. The vegetation in the basin includes sparse grass, shrubs, and trees. Runoff generated within the basin flows west to Tract B Cimarron Hills Southeast Mixed Use Filing No. 1, designated as **Design Point 1,** as sheet flow.

Existing Basin B has a total tributary area of **13.79 acres with a total minor (5-year event) runoff of 3.89 cfs and major (100-year event) runoff of 25.65 cfs**. The basin includes all the on-site area except for the area in Existing Basin A. The basin contains abandoned softball fields, unpaved trails, and a single concrete pad and is analyzed as undeveloped land. The vegetation in the basin includes sparse grass, shrubs, and trees. Runoff generated within the basin flows southwest to Tract C Cimarron Hills Southeast Mixed Use Filing No. 1, designated as **Design Point 2,** as channelized flow. The basin flows ultimately flow west within the roadside ditch at the north side of U.S. Highway 24 and the offramp.

Existing Basin OS has a total tributary area of **0.87 acres with a total minor (5-year event) runoff of 0.28 cfs and major (100-year event) runoff of 1.87 cfs**. The basin is located south of the site and is delineated to include area draining to the analyzed cross section of the ditch. The basin accepts flows from the upstream roadside ditch and the existing private full spectrum detention pond within Tract A Crossroads Mixed Use Filing No. 1 (**Design Point 5**) and from a culvert at **Design Point 4**. The vegetation in the basin includes sparse grass, shrubs, and trees. Runoff within the basin flows from east to west. The basin drains to **Design Point 3**, the roadside ditch north of the U.S. Highway 24 offramp to Peterson Road.

Reference maps are included in Appendix G.

Indicate what the flow is from these 2 design points

c. Proposed Subbasin Description

The Hillpointe Apartments at Peterson developed area basins and subbasins vary from the historical basins due to changes in site layout and drainage conveyance.

The following basins were delineated per the revised site layout. The on-site basins are to be zoned RM-30. Existing **Basin OS** remains unchanged.

Basins highlighted seem like % impervious might be on the low side. Please verify

SUMMARY RUNOFF TABLE				
BASIN	AREA (ac)	% IMPERVIOUS	Q_5 (cfs)	Q_{100} (cfs)
A1.1	0.31	95.4	1.37	2.49
A1.2	0.07	72.6	0.22	0.43
A2	0.49	71.7	1.52	3.00
A3	0.28	69.7	0.96	1.92
A4.1	0.49	71.8	1.68	3.33
A4.2	0.17	81.9	0.67	1.27
A5.1	0.56	73.4	1.81	3.56
A5.2	0.66	70.2	2.14	4.28
A6.1	0.32	51.5	0.81	1.81
A6.2	0.46	77.3	1.52	2.95

A7	0.40	71.4	1.20	2.37
AR1	0.16	90.0	0.59	1.10
AR2	0.10	90.0	0.39	0.72
AR3	0.12	90.0	0.44	0.83
AR4	0.16	90.0	0.59	1.10
AR5	0.17	90.0	0.65	1.21
AR6	0.16	90.0	0.59	1.10
B1.1	0.96	74.8	2.98	5.83
B1.2	0.71	69.3	2.12	4.24
B2.1	0.31	76.4	1.15	2.22
B2.2	0.25	77.7	0.91	1.76
B3.1	0.41	71.0	1.35	2.68
B3.2	0.61	70.6	2.01	4.00
B4	0.42	62.1	1.28	2.65
B5	0.57	51.6	1.33	2.95
B6	0.70	75.2	2.26	4.42
B7	0.88	30.2	1.12	3.08
BL1	0.36	2.0	0.16	0.99
BR1	0.10	90.0	0.38	0.72
BR2	0.12	90.0	0.44	0.83
BR3	0.16	90.0	0.59	1.10
BR4	0.17	90.0	0.65	1.21
BR5	0.17	90.0	0.65	1.21
BR6	0.17	90.0	0.65	1.21
BR7	0.16	90.0	0.59	1.10
BR8	0.33	90.0	1.24	2.31
BR9	0.17	90.0	0.65	1.21
BR10	0.33	90.0	1.24	2.31
O1	0.18	0.0	0.07	0.54
O2	0.20	0.0	0.08	0.61
O3	0.14	0.0	0.06	0.43
O4	0.48	10.1	0.39	1.66
P1	0.17	0.0	0.06	0.47

O2 and O3 both contain a fair amount of paving. Confirm values.

Design Point 1: Runoff generated within Basin A1.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream pond. Q_5 = 1.37 cfs, Q_{100} = 2.49 cfs

A1.2

Design Point 2: Runoff generated within Basin A2.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 0.22 cfs, Q_{100} = 0.43 cfs

What happens with Basins AR2 thru AR6 and BL1, BR1 thru BR4 and BR6 thru BR7?

Design Point 3: Runoff generated within Basin A2 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Ground runoff and runoff from the directly connected apartment building roof area, Basin AR1, ultimately enter a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.11 cfs, Q_{100} = 4.10 cfs

Design Point 4: Runoff generated within Basin A3 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 0.96 cfs, Q_{100} = 1.92 cfs

Design Point 5: Runoff generated within Basin A4.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. This inlet accepts flows from Design Point 6, the upstream inlet within Basin A4.2. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.35 cfs, Q_{100} = 4.60 cfs

Design Point 6: Runoff generated within Basin A4.2 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet which is directly connected to Design Point 5, a downstream private 5' CDOT Type R Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 0.67 cfs, Q_{100} = 1.27 cfs

Design Point 7: Runoff generated within Basin A5.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from garage roof area to the surrounding landscape areas or pavement. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 1.81 cfs, Q_{100} = 3.56 cfs

Design Point 8: Runoff generated within Basin A5.2 sheet flows across amenity and landscape areas, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from the roofs of the mail kiosk, and community center outfall to the surrounding landscape areas. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.14 cfs, Q_{100} = 4.28 cfs

Design Point 9: Runoff generated within Basin A6.1 sheet flows across amenity and landscape areas, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from the roofs of the fitness center and community center outfall to the surrounding landscape areas. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 0.81 cfs, Q_{100} = 1.81 cfs

Design Point 10: Runoff generated within Basin A6.2 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from garage roof area to the surrounding landscape areas or pavement. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 1.52 cfs, Q_{100} = 2.95 cfs

Design Point 11: Runoff generated within Basin A7 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed

private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 1.20 cfs, Q_{100} = 2.37 cfs

Design Point 12: Runoff generated within Basin B1.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from garage roof area to the surrounding landscape areas or pavement. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream pickleball court and into the downstream pond. Q_5 = 2.98 cfs, Q_{100} = 5.83 cfs

Design Point 13: Runoff generated within Basin B1.2 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from garage roof area to the surrounding landscape areas or pavement. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.12 cfs, Q_{100} = 4.24 cfs

Design Point 14: Runoff generated within Basin B2.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 1.15 cfs, Q_{100} = 2.22 cfs

Design Point 15: Runoff generated within Basin B2.2 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 0.91 cfs, Q_{100} = 1.76 cfs

Design Point 16: Runoff generated within Basin B3.1 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Ground runoff and runoff from the directly connected apartment building roof area, Basin BR5, ultimately enter a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.00 cfs, Q_{100} = 3.89 cfs

Design Point 17: Runoff generated within Basin B3.2 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Ground runoff and runoff from the directly connected apartment building roof area, Basin BR3, ultimately enter a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.60 cfs, Q_{100} = 5.10 cfs

Design Point 18: Runoff generated within Basin B4 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff ultimately enters a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 1.28 cfs, Q_{100} = 2.65 cfs

Design Point 19: Runoff generated within Basin B5 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Ground runoff and runoff from the directly connected apartment building roof area, Basin BR8, ultimately enter a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.57 cfs, Q_{100} = 5.27 cfs

Design Point 20: Runoff generated within Basin B6 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Runoff generated from garage roof area to the surrounding landscape areas or pavement. Ground runoff and runoff from the directly connected

apartment building roof area, Basin BR9, ultimately enter a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.91 cfs, Q_{100} = 5.63 cfs

Design Point 21: Runoff generated within Basin B7 sheet flows across landscape area, internal drive aisles, and parking spaces until concentrating within gutters along the drive isles. Ground runoff and runoff from the directly connected apartment building roof area, Basin BR10, ultimately enter a proposed private 5' CDOT Type R Sump Inlet. The inlet's emergency overflow route is to the downstream street. Q_5 = 2.37 cfs, Q_{100} = 5.39 cfs

d. Downstream Drainage

Include statement that this is discusses further in other section.

This development drains to an existing private off-site full spectrum detention facility that provides treatment and detention of stormwater runoff. The site area and imperviousness match the values used to size for the private pond in the *Cimarron Hills Southeast Mixed Use Filing No. 1 Final Drainage Report* prepared by Matrix Design Group as part of the Final Plat application SF2420, and so no modifications are necessary for it to continue functioning as intended. The private off-site pond includes an outlet pipe that drains to the roadside drainage ditch within the public right-of-way of U.S. Highway 24. The public ditch conveys stormwater due west, ultimately to East Fork Sand Creek. Per the FDR by Matrix, the detention pond releases flows at or below historical rates and therefore no improvements to East Fork Sand Creek are proposed. It is anticipated that there will be no negative impacts to downstream properties, developments, or infrastructure due to this development.

III. Drainage Design Criteria

a. Development Criteria Reference

The drainage analysis of existing and proposed storm sewer system follows the criteria from the *El Paso County Drainage Criteria Manual Volumes 1 and 2* (EPC DCM, latest revision October 2018).

b. Hydrologic Criteria

Hydrologic data was obtained from the *El Paso County, Colorado Drainage Criteria Manual – Chapter 5 Storm Runoff Methods of Analysis.* Runoff was calculated per *El Paso County, Colorado Drainage Criteria Manual – Section 5.2 - Rational Method.* Onsite drainage improvements are designed for the 5-year storm (minor event) and 100-year storm (major event) using rainfall values from NOAA Atlas 14 below.

Rainfall Depths for Site Location		
Return Period (yr)	5	100
1-hr Rainfall Depth (in)	1.50	2.52

Private, full spectrum pond design was completed using the latest version of Mile High Flood District's (MHFD) UD-Detention per EPCDCM guidelines. Detention pond allowable release rate are limited to less than historic rates.

c. Hydraulic Criteria

Hydraulic criteria for inlet sizing was obtained from the *El Paso County, Colorado Drainage Criteria Manual – Chapter 7 Street Drainage and Storm Water Inlets* and the UD-Inlet calculator. Hydraulic criteria for storm sewer culverts were obtained from the *El Paso County, Colorado Drainage Criteria Manual – Chapter 9 Culvert Design.* Hydraulic criteria for swale sizing was obtained from the *El Paso County, Colorado Drainage Criteria Manual – Chapter 10 Open Channels and Structures.*

Proposed drive aisle capacities are analyzed utilizing hydraulic modeling (AutoCAD Civil 3D channel analysis tool) by designing the pavement sections as user-defined channels with the proper Manning's coefficient, geometry of designed sections, and slopes. These user-defined capacity calculations are provided to determine the minor 5-year storm and major 100-year storm capacities in various areas of interest.

Storm sewer system modeling is provided in Appendix C. The hydraulic model was developed using Bentley StormCAD to assess and size private inlets and pipes, ensuring that both minor and major hydraulic grade lines comply with applicable stormwater design criteria. Table 9-4 StormCAD Standard Method Coefficients from *City of Colorado Springs, Drainage Criteria Manual, Volume 1* were used for the analysis. All proposed storm pipes are within 80% capacity for the minor storm event and do not surcharge the system to within 1' of all storm manhole rim elevations for the major storm event. The hydraulic grade lines for the minor and major storm at the outfall point of pipes that drain to the proposed private pond are set at the appropriate detention water surface elevations for tailwater conditions.

IV. Drainage Facility Design

a. General Concept

Overland runoff areas include roof runoff from apartment buildings as well as initial overland sheet flow within paved drive aisles and across landscaped areas. On-site stormwater runoff is conveyed as channelized flow within on-site curb and gutter and drainage pans that drain to proposed curb inlets at sump locations. Runoff continues downstream as channelized flow within the two main branches of proposed private on-site storm sewer system. The west branch drains to an existing on-site storm manhole upstream of the existing private off-site full spectrum detention pond, and the east branch drains directly to the forebay on the east side of the existing pond. The existing private off-site pond was assessed for the proposed site area and imperviousness to meet stormwater criteria and treats runoff from the site and releases it at or below historical rates.

b. Basin Design Criteria

The MHFD-Detention spreadsheet was used to design the existing private basin and outlet structure. The 1-hour rainfall depths for the 2, 5, 10, 25, 50, and 100 year storm events used in the spreadsheet were obtained from Table 6-2 Rainfall Depths for Colorado Springs within the EPC DCM. These rainfall depths are 1.19, 1.50, 1.75, 2.00, 2.25, and 2.52 inches, respectively.

Summary table on next page and drainage map show that this exclusion is not used. Please revise.

c. Water Quality & Detention

Water quality treatment is provided for all applicable areas of the site except for excluded areas which do not exceed 20 percent of the development site or 1 acre per the El Paso County base design standard requirements. The existing private off-site full spectrum detention pond provides water quality treatment by facilitating the settling of suspended sediments and the capture of pollutants prior to controlled discharge from the site.

Full spectrum detention is provided by the existing private off-site full spectrum detention basin. The total site area tributary to the detention basin is 13.89 acres and has 66.8% effective imperviousness. Included in Appendix C are the Rational Method Hydrologic Calculations from the FDR by Matrix which include the full site area (Basin P-5) at an assumed imperviousness of 70% for neighborhood areas. The design follows stormwater criteria for full spectrum detention, and the release rate is 40 hours for WQCV, 72 hours for the EURV and 72 hours for the 100-year storm events.

Please provide

See previous comment regarding this report.

d. Major Drainageways

There are no formal major drainageways within the project boundary. The development lies within the Sand Creek East Fork Subbasin in the Sand Creek Drainage Basin, last studied in the *Sand Creek Drainage Basin Planning Study Final Report* dated January 2021, prepared by Stantec, HDR, Dewberry. The East Fork Sand Creek is tributary to Sand Creek which ultimately drains to Fountain Creek. Stormwater from the site is released from the off-site existing private full spectrum detention pond and runs west along the public roadside ditch on the north side of US Highway 24 Off Ramp under Peterson Road and ultimately to East Fork Sand Creek. Per the FDR for Cimmaron Hills Mixed Use Filing No. 1, the full spectrum detention pond releases flows from the site at or below historic rates and the downstream East Fork Sand Creek is stable with no recommendations for improvement in the DBPS. There are no anticipated negative impacts to surrounding and downstream developments, stormwater infrastructure, or drainageways. Therefore, no downstream infrastructure or detention alterations are required.

e. Grading and Erosion Control Plan

Due to the project disturbance area, a separate Grading and Erosion Control plan will be required. The Grading and Erosion Control Plan will be submitted for review and approval with subsequent submittals of this FDR.

f. Four Step Method to Minimize Adverse Impacts of Urbanization

Step 1 – Reducing Runoff Volumes: Roof drains and sidewalks will route across landscaped areas whenever possible to slow runoff and promote infiltration prior to entering landscape drains and the main storm sewer system. Landscape areas are stabilized with permanent seeding for lawn areas, shrubbery and trees, and ornamental landscaping. Landscape buffers are provided along the border of the property to provide runoff reduction to areas of the site that flow directly off-site.

Step 2 – Treat and slowly release the WQCV: The runoff from the site is treated through the capture and slow WQCV via the existing private off-site full spectrum detention pond.

Use pond identifier and provide project number pond is to be constructed under

A table summarizing the water quality treatment within the site is provided below:

Water Quality Treatment Summary Table

Basin ID	Total Area (ac)	Total Proposed Disturbed Area (ac)	Area Trib to Subdivision Pond (ac)	Disturbed Area Excluded from WQ per ECM App I.7.1.C.1 (ac)	Disturbed Area Excluded from WQ per ECM App I.7.1.B.7 (ac)
A1.1	0.31	0.31	0.31		
A1.2	0.07	0.07	0.07		
A2	0.49	0.49	0.49		
A3	0.28	0.28	0.28		
A4.1	0.49	0.49	0.49		
A4.2	0.17	0.17	0.17		
A5.1	0.56	0.56	0.56		
A5.2	0.66	0.66	0.66		
A6.1	0.32	0.32	0.32		

A6.2	0.46	0.46	0.46		
A7	0.40	0.40	0.40		
AR1	0.16	0.16	0.16		
AR2	0.10	0.10	0.10		
AR3	0.12	0.12	0.12		
AR4	0.16	0.16	0.16		
AR5	0.17	0.17	0.17		
AR6	0.16	0.16	0.16		
B1.1	0.96	0.96	0.96		
B1.2	0.71	0.71	0.71		
B2.1	0.31	0.31	0.31		
B2.2	0.25	0.25	0.25		
B3.1	0.41	0.41	0.41		
B3.2	0.61	0.61	0.61		
B4	0.42	0.42	0.42		
B5	0.57	0.57	0.57		
B6	0.70	0.70	0.70		
B7	0.88	0.88	0.88		
BL1	0.36	0.36	0.36		
BR1	0.10	0.10	0.10		
BR2	0.12	0.12	0.12		
BR3	0.16	0.16	0.16		
BR4	0.17	0.17	0.17		
BR5	0.17	0.17	0.17		
BR6	0.17	0.17	0.17		
BR7	0.16	0.16	0.16		
BR8	0.33	0.33	0.33		
BR9	0.17	0.17	0.17		
BR10	0.33	0.33	0.33		
O1	0.18	0.18	0.00		0.18
O2	0.20	0.20	0.20		
O3	0.14	0.14	0.14		
O4	0.48	0.48	0.48		
P1	0.17	0.17	0.17		
Total	14.31	14.31	14.14	0.00	0.18

Min Required Area to Receive WQ (ac)	Total Proposed Disturbed Area (ac)	Total Proposed Treated Area (ac)	Total Proposed Disturbed Area Excluded from WQ (ac)	Net Treatment (ac)
14.14	14.31	14.14	0.18	0.00

Step 3 – Stabilize stream channels: On-site stormwater is released by the existing off-site private full spectrum detention pond into the public roadside ditch at the south of the site at rates less than or equal to historical rates. The development decreases runoff released directly off-site into the public roadside ditch at the south of the site compared to historical rates, which helps to stabilize the channelized flow.

All new and redevelopment projects are required to construct or participate in the funding of channel stabilization measures. Drainage basin fees were paid at the time of platting to go towards channel stabilization within the drainage basin, therefore there are no public drainageway improvements required or proposed as a part of this development.

Step 4 – Consider the need for source controls: No industrial uses are proposed within this development and therefore no industrial source controls are proposed. The developed area is not anticipated to have uses that would require commercial source controls such as a grease trap/interceptor at this time. Should the uses of that building change, the appropriate source controls will be implemented to meet code requirements.

g. Drainage and Bridge Fees

For the Sand Creek Drainage Basin, the 2026 Drainage Fee is $28,160 per impervious acre and the 2026 Bridge Fee is $11,518 per impervious acre. The fees are to be paid at the time of final plat recording.

$28,160 x 4.82 Impervious Acres = $135,731.20 (2026 Drainage Fee)

$11,518 x 4.82 Impervious Acres = $55,516.76 (2026 Bridge Fee)

Include cost estimate for pond modification. Value should match FAE.

h. Hydraulic Grade Line Calculations

Hydraulic Grade Line analysis for the storm network is presented in Appendix C.

V. Summary

The Hillpointe Apartments at Peterson development remains consistent with drainage patterns and site area imperviousness used for calculations and design in the *Cimarron Hills Southeast Filing No. 1 Final Drainage Report* by Matrix Design Group. The proposed development will not adversely affect downstream stormwater infrastructure or surrounding developments. This report meets the latest El Paso County Drainage criteria and is in accordance with previous reports. This Final Drainage Report presents the amended site layout and the resultant drainage changes with design solutions for these revisions.

Indicate who will be maintaining storm system

VI. Variances

County does not do Variances. However, only deviations provided were for road design, so this section can be removed or next page statement can be revised to state that there are no deviations being requested for storm/drainage related items.

The variances requested for thi

- Variance #1:

A Variance Letter describing these variance requests and their justification with appendix items such as calculations and exhibits is to be approved by El Paso County as a part of the Site Development Plan and Final Plat applications.

VII. Drawings

Please refer to the appendices for vicinity and drainage basin maps.

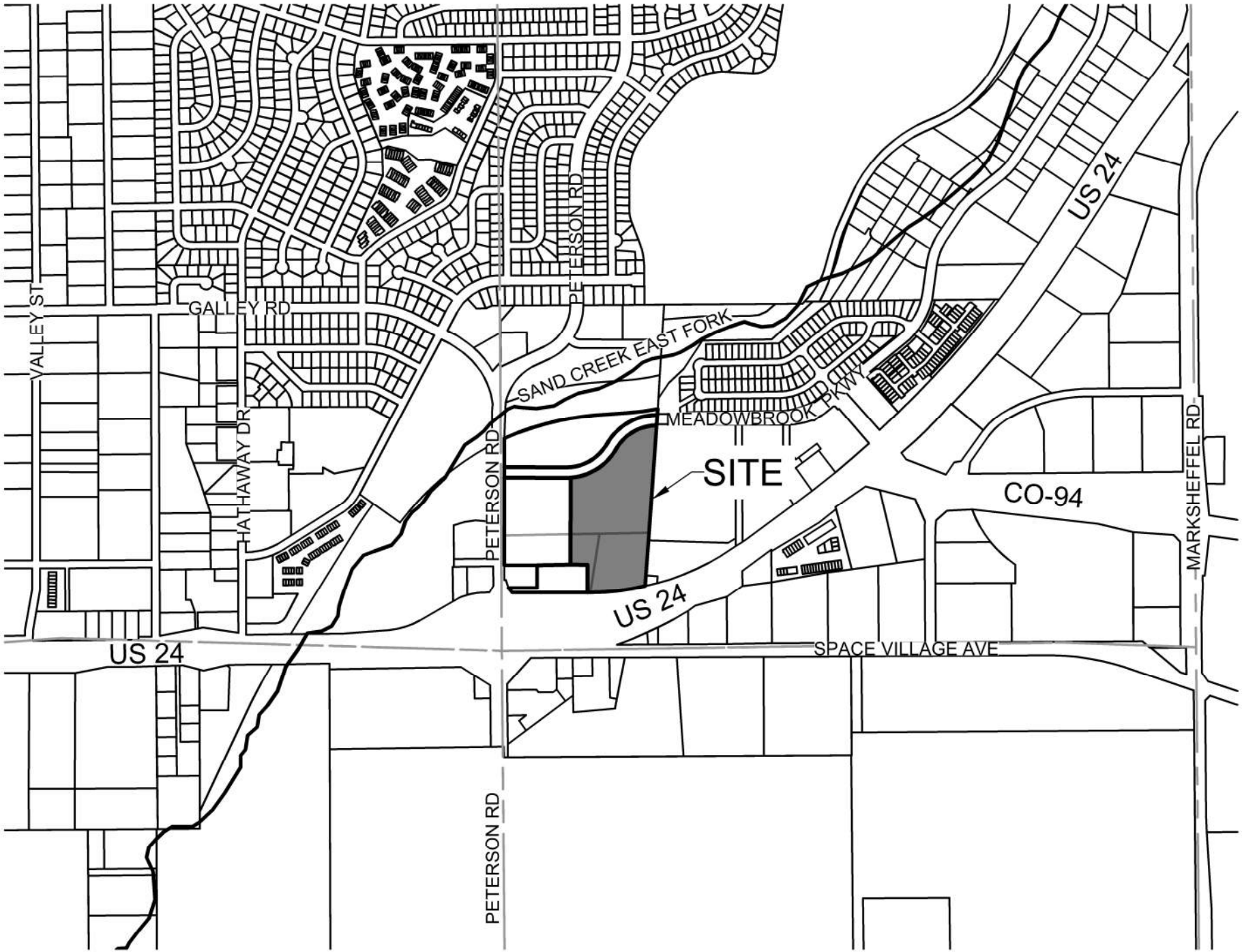
VIII. References

1. El Paso County – Drainage Criteria Manual Volume 1, Revised October 2018.
2. El Paso County – Drainage Criteria Manual Volume 2, Revised October 2018.
3. Urban Storm Drainage Criteria Manual, Urban Drainage Flood Control District, January 2018.
4. Cimmaron Hills Southeast Mixed Use Filing No. 1 Final Drainage Report, Matrix Design Group, September 2025 (SF2420)
5. Sand Creek Drainage Basin Planning Study Final Report, Stantec, HDR, Dewberry, January 2021

APPENDIX A – VICINITY MAP, SOIL MAP, FEMA MAP

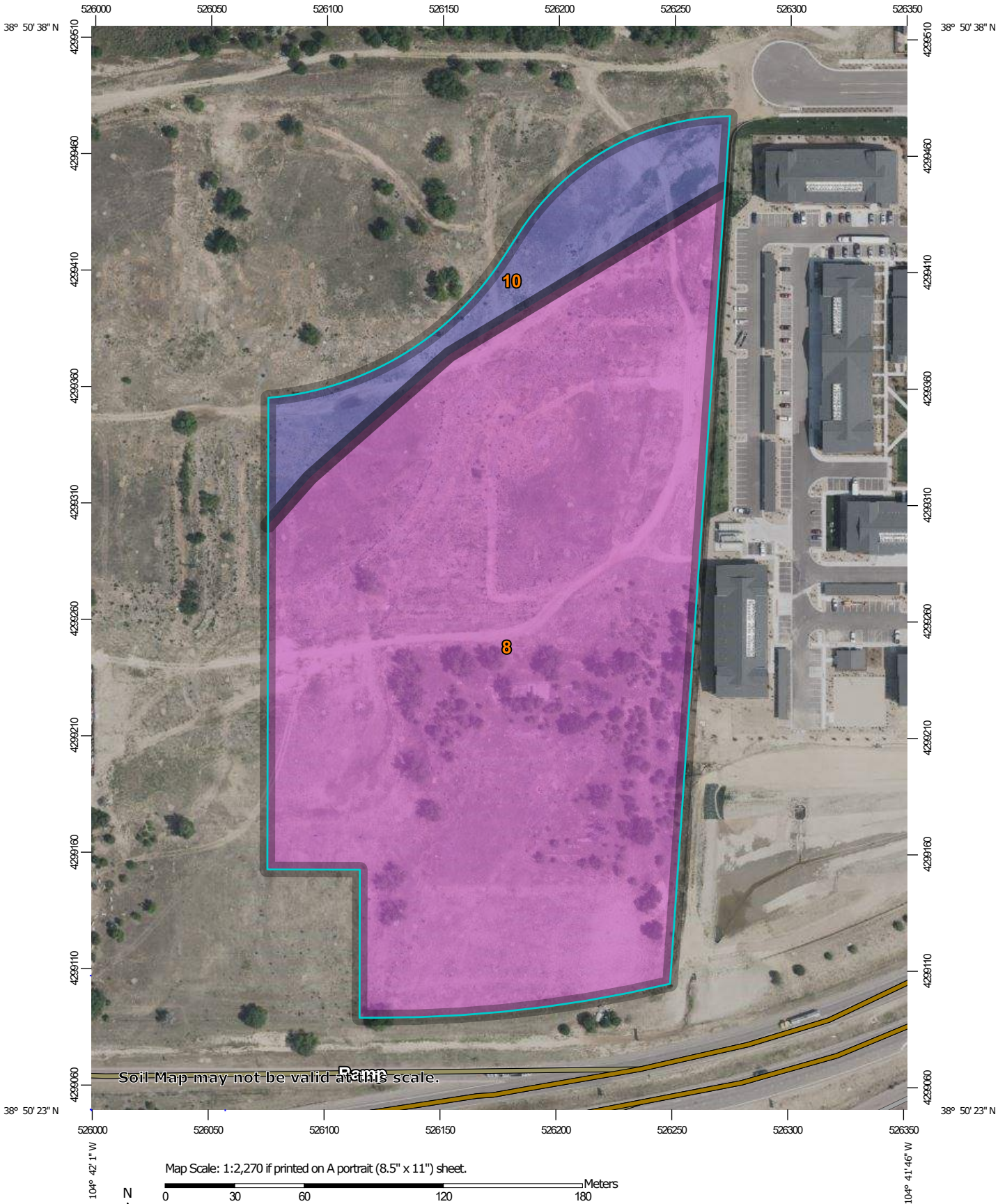
VICINITY MAP

HILLPOINTE APARTMENTS AT PETERSON



SCALE: 1" = 1000'

Hydrologic Soil Group—El Paso County Area, Colorado
(Hillpointe Apartments at Peterson)



Map Scale: 1:2,270 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 23, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2024—Aug 4, 2024

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	A	12.4	88.3%
10	Blendon sandy loam, 0 to 3 percent slopes	B	1.6	11.7%
Totals for Area of Interest			**14.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B – HYDROLOGIC CALCULATIONS

HRGreen	**HILLPOINTE AT PETERSON**	**Calc'd by:**	**CMD**
	EXISTING CONDITIONS	**Checked by:**	**RDL**
	EL PASO COUNTY, CO	**Date:**	**3/9/2026**

SUMMARY RUNOFF TABLE

BASIN	AREA (ac)	% IMPERVIOUS	Q_5 (cfs)	Q_{100} (cfs)
A	0.30	2	0.11	0.71
B	13.79	2	3.89	25.65
OS	0.87	2	0.28	1.87

DESIGN POINT SUMMARY TABLE

DESIGN POINT	CONTRIBUTING BASINS	ΣQ_5 (cfs)	ΣQ_{100} (cfs)
1	A	0.11	0.71
2	B	3.89	25.65
3	OS	0.28	1.87

HILLPOINTE AT PETERSON
EXISTING CONDITIONS
EL PASO COUNTY, CO

Calc'd by: CMD

Checked by: RDL

Date: 3/9/2026

SOIL TYPE: HSG A&B

COMPOSITE 'C' FACTORS

	LAND USE TYPE									TOTAL	COMPOSITE IMPERVIOUSNESS & C FACTOR		
	Roofs			Drive and Walks			Historic Flow Analysis--Greenbelts,						
	%I	C_5	C_{100}	%I	C_5	C_{100}	%I	C_5	C_{100}				
	90	0.73	0.81	100	0.90	0.96	2	0.09	0.36				
BASIN	ACRES			ACRES			ACRES			ACRES	%I	C_5	C_{100}
A	0.00			0.00			0.30			0.30	2.00	0.09	0.36
B	0.00			0.03			13.76			13.79	2.24	0.09	0.36
OS	0.00			0.00			0.87			0.87	2.00	0.09	0.36
ON-SITE	0.00			0.03			14.06			14.09	2.24	0.09	0.36
OFF-SITE	0.00			0.00			0.87			0.87	2.00	0.09	0.36
TOTAL	0.00			0.03			14.93			14.96	2.22	0.09	0.36

HRGreen	**HILLPOINTE AT PETERSON**	**Calc'd by:**	**CMD**
	EXISTING CONDITIONS	**Checked by:**	**RDL**
	EL PASO COUNTY, CO	**Date:**	**3/9/2026**

TIME OF CONCENTRATION

BASIN DATA			OVERLAND TIME (T_i)			TRAVEL TIME (T_t)					TOTAL	*tc=(L/180)+10*	Design tc
DESIGNATION	C_5	AREA (ac)	LENGTH (ft)	SLOPE %	t_i (min)	C_V	LENGTH (ft)	SLOPE %	V (ft/s)	t_t (min)	t_c (min)	*tc max*	*tc design (min)*
A	0.09	0.30	150	2.1	17.6	7	150	2.1	1.0	2.4	20.0	11.7	11.7
B	0.09	13.79	300	1.7	26.9	7	1558	1.7	0.9	28.6	55.6	20.3	20.3
OS	0.09	0.87	300	1.5	28.3	7	532	1.5	0.8	10.5	38.8	14.6	14.6

$$t_i = \frac{0.395(1.1 - C_5)\sqrt{L}}{S^{0.33}} \qquad V = C_v S_w^{0.5}$$

Overland length seems long based on size of basin. Please verify

Table 6-7. Conveyance Coefficient, C_v

Type of Land Surface	C_v
Heavy meadow	2.5
Tillage/field	5
Riprap (not buried)*	6.5
Short pasture and lawns	7
Nearly bare ground	10
Grassed waterway	15
Paved areas and shallow paved swales	20

*For buried riprap, select C_v value based on type of vegetative cover.

HRGreen

HILLPOINTE AT PETERSON
EXISTING CONDITIONS
DESIGN STORM: 5-YEAR

Calc'd by:	CMD
Checked by:	RDL
Date:	3/9/2026

			DIRECT RUNOFF						TOTAL RUNOFF				STREET			PIPE				TRAVEL TIME			REMARKS
STRUCTURE	DESIGN POINT	BASIN ID	AREA (ac)	C_5	t_c (min)	C_5*A (ac)	I (in./ hr.)	Q (cfs)	t_c (min)	C_5*A (ac)	I (in./ hr.)	Q (cfs)	Q_{street} (cfs)	C_5*A (ac)	SLOPE %	Q_{PIPE} (cfs)	C_5*A (ac)	SLOPE %	PIPE SIZE (ft)	LENGTH (FT)	VEL. (FPS)	TRAVEL TIME (min	
	1	A	0.30	0.09	11.7	0.03	3.90	0.11															
	2	B	13.79	0.09	20.3	1.27	3.07	3.89															
	3	OS	0.87	0.09	14.6	0.08	3.56	0.28															

HRGreen

HILLPOINTE AT PETERSON

EXISTING CONDITIONS

DESIGN STORM: 100-YEAR

Calc'd by:	CMD
Checked by:	RDL
Date:	3/9/2026

			DIRECT RUNOFF						TOTAL RUNOFF				STREET			PIPE				TRAVEL TIME			REMARKS
STRUCTURE	DESIGN POINT	BASIN ID	AREA (ac)	C_{100}	t_c (min)	C_{100}*A (ac)	I (in./ hr.)	Q (cfs)	t_c (min)	C_{100}*A (ac)	I (in./ hr.)	Q (cfs)	Q_{street} (cfs)	C_{100}*A (ac)	SLOPE %	Q_{PIPE} (cfs)	C_{100}*A (ac)	SLOPE %	PIPE SIZE (ft)	LENGTH (ft)	VEL. (ft/s)	TRAVEL TIME (min)	
	1	A	0.30	0.36	11.7	0.11	6.54	0.71															
	2	B	13.79	0.36	20.3	4.98	5.15	25.65															
	3	OS	0.87	0.36	14.6	0.31	5.97	1.87															

HRGreen	HILLPOINTE APARTMENTS AT PETERSON	Calc'd by:	CMD
	PROPOSED CONDITIONS	Checked by:	RDL
	EL PASO COUNTY, CO	Date:	4/21/2026

SUMMARY RUNOFF TABLE

BASIN	AREA (ac)	% IMPERVIOUS	Q_5 (cfs)	Q_{100} (cfs)
A1.1	0.31	95.4	1.37	2.49
A1.2	0.07	72.6	0.22	0.43
A2	0.49	71.7	1.52	3.00
A3	0.28	69.7	0.96	1.92
A4.1	0.49	71.8	1.68	3.33
A4.2	0.17	81.9	0.67	1.27
A5.1	0.56	73.4	1.81	3.56
A5.2	0.66	70.2	2.14	4.28
A6.1	0.32	51.5	0.81	1.81
A6.2	0.46	77.3	1.52	2.95
A7	0.40	71.4	1.20	2.37
AR1	0.16	90.0	0.59	1.10
AR2	0.10	90.0	0.39	0.72
AR3	0.12	90.0	0.44	0.83
AR4	0.16	90.0	0.59	1.10
AR5	0.17	90.0	0.65	1.21
AR6	0.16	90.0	0.59	1.10
B1.1	0.96	74.8	2.98	5.83
B1.2	0.71	69.3	2.12	4.24
B2.1	0.31	76.4	1.15	2.22
B2.2	0.25	77.7	0.91	1.76
B3.1	0.41	71.0	1.35	2.68
B3.2	0.61	70.6	2.01	4.00
B4	0.42	62.1	1.28	2.65
B5	0.57	51.6	1.33	2.95
B6	0.70	75.2	2.26	4.42
B7	0.88	30.2	1.12	3.08
BL1	0.36	2.0	0.16	0.99

DESIGN POINT SUMMARY TABLE

DESIGN POINT	CONTRIBUTING BASINS	ΣQ_5 (cfs)	ΣQ_{100} (cfs)
1	A1.1	1.37	2.49
2	A1.2	0.22	0.43
3	A2, AR1	2.11	4.10
4	A3	0.96	1.92
5	A4.1, A4.2	2.35	4.60
6	A4.2	0.67	1.27
7	A5.1	1.81	3.56
8	A5.2	2.14	4.28
9	A6.1	0.81	1.81
10	A6.2	1.52	2.95
11	A7	1.20	2.37
12	B1.1	2.98	5.83
13	B1.2	2.12	4.24
14	B2.1	1.15	2.22
15	B2.2	0.91	1.76
16	B3.1, BR5	2.00	3.89
17	B3.2	2.01	4.00
18	B4	1.28	2.65
19	B5, BR8	2.57	5.27
20	B6, BR9	2.91	5.63
21	B7, BR10	2.37	5.39

BR1	0.10	90.0	0.38	0.72
BR2	0.12	90.0	0.44	0.83
BR3	0.16	90.0	0.59	1.10
BR4	0.17	90.0	0.65	1.21
BR5	0.17	90.0	0.65	1.21
BR6	0.17	90.0	0.65	1.21
BR7	0.16	90.0	0.59	1.10
BR8	0.33	90.0	1.24	2.31
BR9	0.17	90.0	0.65	1.21
BR10	0.33	90.0	1.24	2.31
O1	0.18	0.0	0.07	0.54
O2	0.20	0.0	0.08	0.61
O3	0.14	0.0	0.06	0.43
O4	0.48	10.1	0.39	1.66
P1	0.17	0.0	0.06	0.47

HRGreen	**HILLPOINTE AT PETERSON**	**Calc'd by:**	**CMD**
	PROPOSED CONDITIONS	**Checked by:**	**RDL**
	EL PASO COUNTY, CO	**Date:**	**4/21/2026**

SOIL TYPE: HSG A&B

COMPOSITE 'C' FACTORS

BASIN	LAND USE TYPE									TOTAL	COMPOSITE IMPERVIOUSNESS & C FACTOR		
	Roofs			Drive and Walks			Lawns						
	%I	C_5	C_{100}	%I	C_5	C_{100}	%I	C_5	C_{100}				
	90	0.73	0.81	100	0.90	0.96	0	0.08	0.35				
	ACRES			ACRES			ACRES			ACRES	%I	C_5	C_{100}
A1.1	0.00			0.29			0.01			0.31	95.4	0.86	0.93
A1.2	0.00			0.05			0.02			0.07	72.6	0.68	0.79
A2	0.00			0.35			0.14			0.49	71.7	0.67	0.79
A3	0.00			0.20			0.09			0.28	69.7	0.65	0.78
A4.1	0.00			0.35			0.14			0.49	71.8	0.67	0.79
A4.2	0.00			0.14			0.03			0.17	81.9	0.75	0.85
A5.1	0.04			0.38			0.15			0.56	73.4	0.68	0.79
A5.2	0.06			0.41			0.19			0.66	70.2	0.65	0.77
A6.1	0.07			0.10			0.15			0.32	51.5	0.48	0.64
A6.2	0.04			0.32			0.10			0.46	77.3	0.71	0.81
A7	0.00			0.29			0.12			0.40	71.4	0.67	0.79
AR1	0.16			0.00			0.00			0.16	90.0	0.73	0.81
AR2	0.10			0.00			0.00			0.10	90.0	0.73	0.81
AR3	0.12			0.00			0.00			0.12	90.0	0.73	0.81
AR4	0.16			0.00			0.00			0.16	90.0	0.73	0.81
AR5	0.17			0.00			0.00			0.17	90.0	0.73	0.81
AR6	0.16			0.00			0.00			0.16	90.0	0.73	0.81
B1.1	0.05			0.68			0.24			0.96	74.8	0.69	0.80
B1.2	0.04			0.46			0.22			0.71	69.3	0.64	0.77
B2.1	0.00			0.24			0.07			0.31	76.4	0.71	0.82
B2.2	0.00			0.20			0.06			0.25	77.7	0.72	0.82
B3.1	0.00			0.29			0.12			0.41	71.0	0.66	0.78
B3.2	0.00			0.43			0.18			0.61	70.6	0.66	0.78
B4	0.00			0.26			0.16			0.42	62.1	0.59	0.73
B5	0.00			0.30			0.28			0.57	51.6	0.50	0.66

COMPOSITE 'C' FACTORS

BASIN	LAND USE TYPE									TOTAL	COMPOSITE IMPERVIOUSNESS & C FACTOR		
	Roofs			Drive and Walks			Lawns						
	%I	C_5	C_{100}	%I	C_5	C_{100}	%I	C_5	C_{100}				
	90	0.73	0.81	100	0.90	0.96	0	0.08	0.35				
	ACRES			ACRES			ACRES			ACRES	%I	C_5	C_{100}
B6	0.04			0.49			0.17			0.70	75.2	0.69	0.80
B7	0.00			0.26			0.61			0.88	30.2	0.33	0.53
BL1	0.00			0.01			0.36			0.36	2.0	0.10	0.36
BR1	0.10			0.00			0.00			0.10	90.0	0.73	0.81
BR2	0.12			0.00			0.00			0.12	90.0	0.73	0.81
BR3	0.16			0.00			0.00			0.16	90.0	0.73	0.81
BR4	0.17			0.00			0.00			0.17	90.0	0.73	0.81
BR5	0.17			0.00			0.00			0.17	90.0	0.73	0.81
BR6	0.17			0.00			0.00			0.17	90.0	0.73	0.81
BR7	0.16			0.00			0.00			0.16	90.0	0.73	0.81
BR8	0.33			0.00			0.00			0.33	90.0	0.73	0.81
BR9	0.17			0.00			0.00			0.17	90.0	0.73	0.81
BR10	0.33			0.00			0.00			0.33	90.0	0.73	0.81
O1	0.00			0.00			0.18			0.18	0.0	0.08	0.35
O2	0.00			0.00			0.20			0.20	0.0	0.08	0.35
O3	0.00			0.00			0.14			0.14	0.0	0.08	0.35
O4	0.00			0.05			0.43			0.48	10.1	0.16	0.41
P1	0.00			0.00			0.17			0.17	0.0	0.08	0.35
ON-SITE	3.07			6.55			4.52			14.14	65.9	0.60	0.73
OFF-SITE	0.00			0.00			0.18			0.18	0.0	0.08	0.35
TOTAL	3.07			6.55			4.70			14.31	65.0	0.59	0.73

HRGreen	HILLPOINTE AT PETERSON	Calc'd by:	CMD
	PROPOSED CONDITIONS	Checked by:	RDL
	EL PASO COUNTY, CO	Date:	4/21/2026

TIME OF CONCENTRATION

BASIN DATA			OVERLAND TIME (T_i)			TRAVEL TIME (T_t)					TOTAL	tc=(L/180)+10	Design tc
DESIGNATION	C_5	AREA (ac)	LENGTH (ft)	SLOPE %	t_i (min)	C_V	LENGTH (ft)	SLOPE %	V (ft/s)	t_t (min)	t_c (min)	tc max	tc design (min)
A1.1	0.86	0.31	15	2.0	1.3	20	365	1.3	2.3	2.7	5.0	12.1	5.0
A1.2	0.68	0.07	28	2.0	3.3	20	304	1.0	2.0	2.6	5.8	11.8	5.8
A2	0.67	0.49	28	2.0	3.3	20	417	0.9	1.9	3.7	7.1	12.5	7.1
A3	0.65	0.28	20	5.0	2.1	20	285	1.3	2.3	2.1	5.0	11.7	5.0
A4.1	0.67	0.49	18	2.0	2.7	20	179	1.3	2.2	1.3	5.0	11.1	5.0
A4.2	0.75	0.17	54	2.0	3.7	20	179	1.1	2.1	1.4	5.2	11.3	5.2
A5.1	0.68	0.56	50	2.0	4.4	20	327	1.6	2.5	2.2	6.5	12.1	6.5
A5.2	0.65	0.66	42	2.0	4.3	20	167	1.3	2.3	1.2	5.5	11.2	5.5
A6.1	0.48	0.32	24	5.0	3.2	20	148	2.3	3.0	0.8	5.0	11.0	5.0
A6.2	0.71	0.46	42	2.0	3.7	20	447	1.5	2.4	3.1	6.8	12.7	6.8
A7	0.67	0.40	72	2.0	5.4	20	475	2.1	2.9	2.8	8.1	13.0	8.1
AR1	0.73	0.16	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
AR2	0.73	0.10	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
AR3	0.73	0.12	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
AR4	0.73	0.16	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
AR5	0.73	0.17	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
AR6	0.73	0.16	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
B1.1	0.69	0.96	44	12.0	2.2	20	824	1.5	2.4	5.6	7.8	14.8	7.8
B1.2	0.64	0.71	30	2.0	3.6	20	451	1.1	2.1	3.6	7.2	12.7	7.2
B2.1	0.71	0.31	30	2.0	3.1	20	301	1.8	2.6	1.9	5.0	11.8	5.0
B2.2	0.72	0.25	44	2.0	3.7	20	248	1.3	2.3	1.8	5.5	11.6	5.5
B3.1	0.66	0.41	32	2.0	3.6	20	281	1.3	2.2	2.1	5.7	11.7	5.7
B3.2	0.66	0.61	32	2.0	3.6	20	269	1.2	2.2	2.1	5.7	11.7	5.7
B4	0.59	0.42	14	2.0	2.8	20	300	1.4	2.3	2.1	5.0	11.7	5.0
B5	0.50	0.57	37	2.0	5.3	20	224	1.0	2.0	1.9	7.2	11.5	7.2
B6	0.69	0.70	44	2.0	3.9	20	375	1.2	2.2	2.9	6.8	12.3	6.8
B7	0.33	0.88	95	3.0	9.6	20	403	3.1	3.5	1.9	11.5	12.8	11.5
BL1	0.10	0.36	48	10.0	5.9	20	280	1.5	2.4	1.9	7.9	11.8	7.9
BR1	0.73	0.10	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR2	0.73	0.12	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR3	0.73	0.16	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR4	0.73	0.17	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR5	0.73	0.17	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR6	0.73	0.17	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0

HRGreen	**HILLPOINTE AT PETERSON**	**Calc'd by:**	**CMD**
	PROPOSED CONDITIONS	**Checked by:**	**RDL**
	EL PASO COUNTY, CO	**Date:**	**4/21/2026**

TIME OF CONCENTRATION

BASIN DATA			OVERLAND TIME (T_i)			TRAVEL TIME (T_t)					TOTAL	*tc=(L/180)+10*	Design tc
DESIGNATION	C_5	AREA (ac)	LENGTH (ft)	SLOPE %	t_i (min)	C_V	LENGTH (ft)	SLOPE %	V (ft/s)	t_t (min)	t_c (min)	*tc max*	*tc design (min)*
BR7	0.73	0.16	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR8	0.73	0.33	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR9	0.73	0.17	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
BR10	0.73	0.33	28	45.8	1.0	20	50	45.8	13.5	0.1	5.0	10.4	5.0
O1	0.08	0.18	27	10.0	4.5	20	27	10.0	6.3	0.1	5.0	10.3	5.0
O2	0.08	0.20	26	33.3	3.0	20	26	33.3	11.5	0.0	5.0	10.3	5.0
O3	0.08	0.14	46	15.0	5.1	20	46	15.0	7.7	0.1	5.2	10.5	5.2
O4	0.16	0.48	37	7.0	5.5	20	37	7.0	5.3	0.1	5.6	10.4	5.6
P1	0.08	0.17	32	5.0	6.2	20	32	5.0	4.5	0.1	6.3	10.4	6.3

$$t_i = \frac{0.395(1.1 - C_5)\sqrt{L}}{S^{0.33}} \qquad V = C_v S_w^{0.5}$$

Table 6-7. Conveyance Coefficient, C_v

Type of Land Surface	C_v
Heavy meadow	2.5
Tillage/field	5
Riprap (not buried)*	6.5
Short pasture and lawns	7
Nearly bare ground	10
Grassed waterway	15
Paved areas and shallow paved swales	20

*For buried riprap, select C_v value based on type of vegetative cover.

HRGreen

HILLPOINTE AT PETERSON
PROPOSED CONDITIONS
DESIGN STORM: 5-YEAR

Calc'd by:	CMD
Checked by:	RDL
Date:	4/21/2026

			DIRECT RUNOFF						TOTAL RUNOFF				STREET			PIPE				TRAVEL TIME			REMARKS
STRUCTURE	DESIGN POINT	BASIN ID	AREA (ac)	C_5	t_c (min)	C_5*A (ac)	I (in./ hr.)	Q (cfs)	t_c (min)	C_5*A (ac)	I (in./ hr.)	Q (cfs)	Q_{street} (cfs)	C_5*A (ac)	SLOPE %	Q_{PIPE} (cfs)	C_5*A (ac)	SLOPE %	PIPE SIZE (ft)	LENGTH (ft)	VEL. (ft/s)	TRAVEL TIME (min)	
	1	A1.1	0.31	0.86	5.0	0.27	5.17	1.37															
	2	A1.2	0.07	0.68	5.8	0.04	4.93	0.22															
		A2	0.49	0.67	7.1	0.33	4.65	1.52															
	3 4	A3	0.28	0.65	5.0	0.19	5.17	0.96				2.11											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
		A4.1	0.49	0.67	5.0	0.33	5.17	1.68															
	6	A4.2	0.17	0.75	5.2	0.13	5.12	0.67															
	5 7	A5.1	0.56	0.68	6.5	0.38	4.76	1.81				2.94											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	8	A5.2	0.66	0.65	5.5	0.43	5.04	2.14															
	9	A6.1	0.32	0.48	5.0	0.16	5.17	0.81															
	10	A6.2	0.46	0.71	6.8	0.32	4.71	1.52															
	11	A7	0.40	0.67	8.1	0.27	4.44	1.20															
		AR1	0.16	0.73	5.0	0.11	5.17	0.59															
		AR2	0.10	0.73	5.0	0.08	5.17	0.39															
		AR3	0.12	0.73	5.0	0.09	5.17	0.44															
		AR4	0.16	0.73	5.0	0.11	5.17	0.59															
		AR5	0.17	0.73	5.0	0.13	5.17	0.65															
		AR6	0.16	0.73	5.0	0.11	5.17	0.59															
	12	B1.1	0.96	0.69	7.8	0.66	4.50	2.98															
	13	B1.2	0.71	0.64	7.2	0.46	4.61	2.12															
	14	B2.1	0.31	0.71	5.0	0.22	5.16	1.15															
	15	B2.2	0.25	0.72	5.5	0.18	5.02	0.91															
		B3.1	0.41	0.66	5.7	0.27	4.97	1.35															
	16 17	B3.2	0.61	0.66	5.7	0.40	4.97	2.01				2.00											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	18	B4	0.42	0.59	5.0	0.25	5.17	1.28															
		B5	0.57	0.50	7.2	0.29	4.63	1.33															
	19	B6	0.70	0.69	6.8	0.48	4.70	2.26				2.57											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	20	B7	0.88	0.33	11.5	0.29	3.92	1.12				2.91											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	21											2.37											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION

HRGreen

HILLPOINTE AT PETERSON
PROPOSED CONDITIONS
DESIGN STORM: 5-YEAR

Calc'd by:	CMD
Checked by:	RDL
Date:	4/21/2026

			DIRECT RUNOFF						TOTAL RUNOFF				STREET			PIPE				TRAVEL TIME			REMARKS
STRUCTURE	DESIGN POINT	BASIN ID	AREA (ac)	C_5	t_c (min)	C_5*A (ac)	I (in./ hr.)	Q (cfs)	t_c (min)	C_5*A (ac)	I (in./ hr.)	Q (cfs)	Q_{street} (cfs)	C_5*A (ac)	SLOPE %	Q_{PIPE} (cfs)	C_5*A (ac)	SLOPE %	PIPE SIZE (ft)	LENGTH (ft)	VEL. (ft/s)	TRAVEL TIME (min)	
		BL1	0.36	0.10	7.9	0.04	4.49	0.16															
		BR1	0.10	0.73	5.0	0.07	5.17	0.38															
		BR2	0.12	0.73	5.0	0.09	5.17	0.44															
		BR3	0.16	0.73	5.0	0.11	5.17	0.59															
		BR4	0.17	0.73	5.0	0.13	5.17	0.65															
		BR5	0.17	0.73	5.0	0.13	5.17	0.65															
		BR6	0.17	0.73	5.0	0.13	5.17	0.65															
		BR7	0.16	0.73	5.0	0.11	5.17	0.59															
		BR8	0.33	0.73	5.0	0.24	5.17	1.24															
		BR9	0.17	0.73	5.0	0.13	5.17	0.65															
		BR10	0.33	0.73	5.0	0.24	5.17	1.24															
		O1	0.18	0.08	5.0	0.01	5.17	0.07															
		O2	0.20	0.08	5.0	0.02	5.17	0.08															
		O3	0.14	0.08	5.2	0.01	5.10	0.06															
		O4	0.48	0.16	5.6	0.08	5.00	0.39															
		P1	0.17	0.08	6.3	0.01	4.82	0.06															

HRGreen

HILLPOINTE AT PETERSON
PROPOSED CONDITIONS
DESIGN STORM: 100-YEAR

Calc'd by:	CMD
Checked by:	RDL
Date:	4/21/2026

			DIRECT RUNOFF						TOTAL RUNOFF				STREET			PIPE				TRAVEL TIME			REMARKS
STRUCTURE	DESIGN POINT	BASIN ID	AREA (ac)	C_{100}	t_c (min)	C_{100}*A (ac)	I (in./ hr.)	Q (cfs)	t_c (min)	C_{100}*A (ac)	I (in./ hr.)	Q (cfs)	Q_{street} (cfs)	C_{100}*A (ac)	SLOPE %	Q_{PIPE} (cfs)	C_{100}*A (ac)	SLOPE %	PIPE SIZE (ft)	LENGTH (ft)	VEL. (ft/s)	TRAVEL TIME (min)	
	1	A1.1	0.31	0.93	5.0	0.29	8.68	2.49															
	2	A1.2	0.07	0.79	5.8	0.05	8.28	0.43															
		A2	0.49	0.79	7.1	0.38	7.81	3.00															
	3 4	A3	0.28	0.78	5.0	0.22	8.68	1.92				4.10											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
		A4.1	0.49	0.79	5.0	0.38	8.68	3.33															
	6	A4.2	0.17	0.85	5.2	0.15	8.59	1.27															
	5 7	A5.1	0.56	0.79	6.5	0.45	8.00	3.56				5.70											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	8	A5.2	0.66	0.77	5.5	0.51	8.46	4.28															
	9	A6.1	0.32	0.64	5.0	0.21	8.68	1.81															
	10	A6.2	0.46	0.81	6.8	0.37	7.91	2.95															
	11	A7	0.40	0.79	8.1	0.32	7.46	2.37															
		AR1	0.16	0.81	5.0	0.13	8.68	1.10															
		AR2	0.10	0.81	5.0	0.08	8.68	0.72															
		AR3	0.12	0.81	5.0	0.10	8.68	0.83															
		AR4	0.16	0.81	5.0	0.13	8.68	1.10															
		AR5	0.17	0.81	5.0	0.14	8.68	1.21															
		AR6	0.16	0.81	5.0	0.13	8.68	1.10															
	12	B1.1	0.96	0.80	7.8	0.77	7.56	5.83															
	13	B1.2	0.71	0.77	7.2	0.55	7.74	4.24															
	14	B2.1	0.31	0.82	5.0	0.26	8.66	2.22															
	15	B2.2	0.25	0.82	5.5	0.21	8.43	1.76															
		B3.1	0.41	0.78	5.7	0.32	8.35	2.68															
	16 17	B3.2	0.61	0.78	5.7	0.48	8.35	4.00				3.89											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	18	B4	0.42	0.73	5.0	0.31	8.68	2.65															
		B5	0.57	0.66	7.2	0.38	7.77	2.95															
	19	B6	0.70	0.80	6.8	0.56	7.90	4.42				5.27											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
	20	B7	0.88	0.53	11.5	0.47	6.58	3.08				5.63											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION

HRGreen

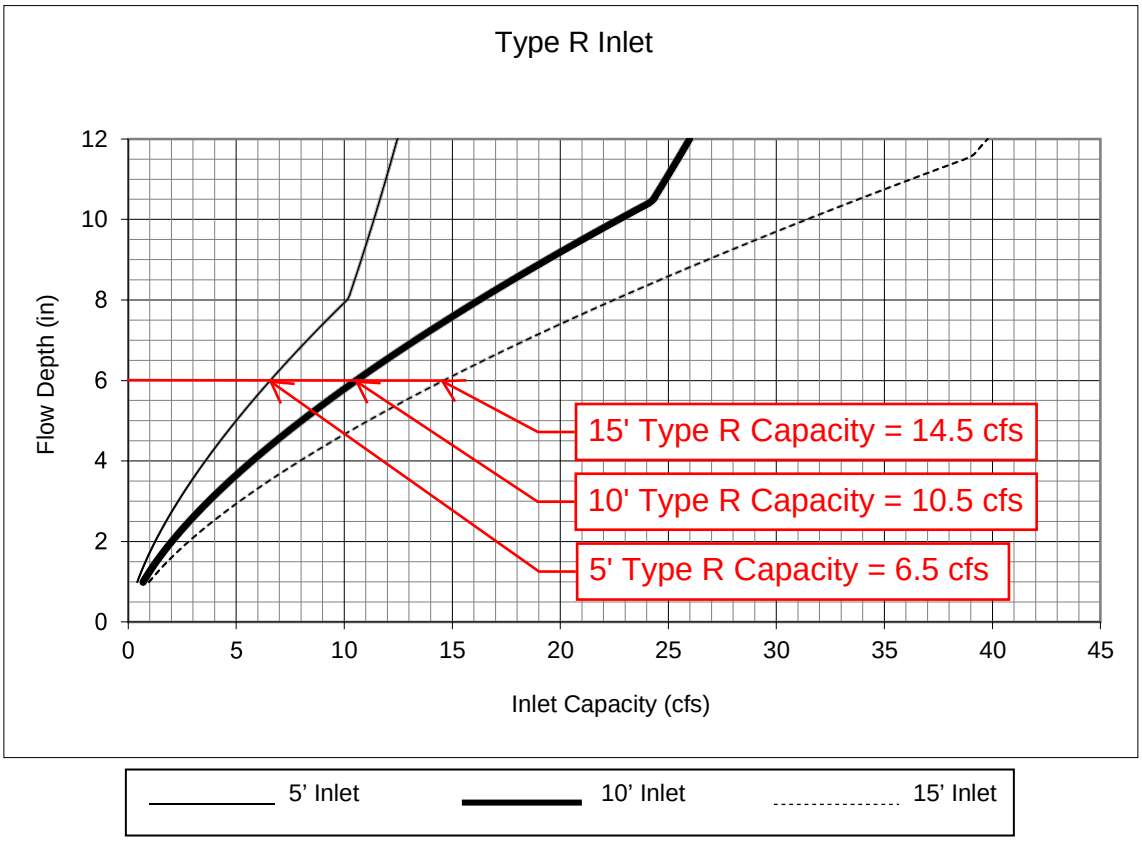
HILLPOINTE AT PETERSON
PROPOSED CONDITIONS
DESIGN STORM: 100-YEAR

Calc'd by:	CMD
Checked by:	RDL
Date:	4/21/2026

			DIRECT RUNOFF						TOTAL RUNOFF				STREET			PIPE				TRAVEL TIME			REMARKS
STRUCTURE	DESIGN POINT	BASIN ID	AREA (ac)	C_{100}	t_c (min)	C_{100}*A (ac)	I (in./ hr.)	Q (cfs)	t_c (min)	C_{100}*A (ac)	I (in./ hr.)	Q (cfs)	Q_{street} (cfs)	C_{100}*A (ac)	SLOPE %	Q_{PIPE} (cfs)	C_{100}*A (ac)	SLOPE %	PIPE SIZE (ft)	LENGTH (ft)	VEL. (ft/s)	TRAVEL TIME (min)	
	21	BL1	0.36	0.36	7.9	0.13	7.54	0.99				5.39											COMBINED FLOW TO INLET AT DESIGN POINT LOCATION
		BR1	0.10	0.81	5.0	0.08	8.68	0.72															
		BR2	0.12	0.81	5.0	0.10	8.68	0.83															
		BR3	0.16	0.81	5.0	0.13	8.68	1.10															
		BR4	0.17	0.81	5.0	0.14	8.68	1.21															
		BR5	0.17	0.81	5.0	0.14	8.68	1.21															
		BR6	0.17	0.81	5.0	0.14	8.68	1.21															
		BR7	0.16	0.81	5.0	0.13	8.68	1.10															
		BR8	0.33	0.81	5.0	0.27	8.68	2.31															
		BR9	0.17	0.81	5.0	0.14	8.68	1.21															
		BR10	0.33	0.81	5.0	0.27	8.68	2.31															
		O1	0.18	0.35	5.0	0.06	8.68	0.54															
		O2	0.20	0.35	5.0	0.07	8.68	0.61															
		O3	0.14	0.35	5.2	0.05	8.56	0.43															
		O4	0.48	0.41	5.6	0.20	8.40	1.66															
		P1	0.17	0.35	6.3	0.06	8.09	0.47															

APPENDIX C – HYDRAULIC CALCULATIONS

Figure 8-11. Inlet Capacity Chart Sump Conditions , Curb Opening (Type R) Inlet



All inlets are sump?

Notes:

1. The standard inlet parameters must apply to use this chart.

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 20 2026

Typical Street Section - Maximum Capacity

User-defined

Invert Elev (ft)	= 6289.59
Slope (%)	= 0.50
N-Value	= 0.013

Calculations

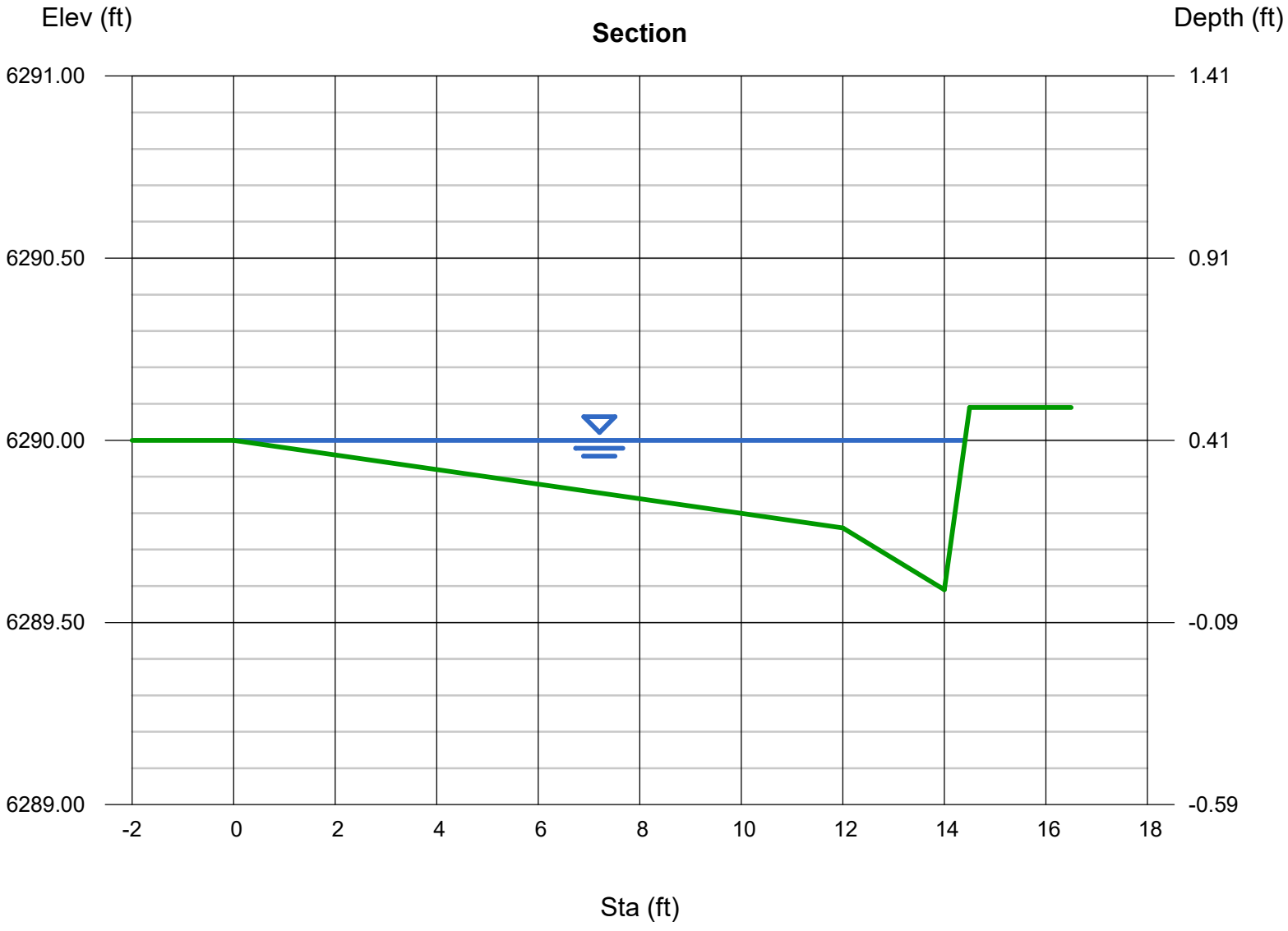
Compute by:	Known Q
Known Q (cfs)	= 4.95

Highlighted

Depth (ft)	= 0.41
Q (cfs)	= 4.950
Area (sqft)	= 2.18
Velocity (ft/s)	= 2.27
Wetted Perim (ft)	= 14.59
Crit Depth, Yc (ft)	= 0.42
Top Width (ft)	= 14.41
EGL (ft)	= 0.49

(Sta, El, n)-(Sta, El, n)...

(0.00, 6290.00)-(12.00, 6289.76, 0.013)-(14.00, 6289.59, 0.013)-(14.50, 6290.09, 0.013)



Add StormCAD Design

[STORMCAD ANALYSIS]

Include MHFD Detention calculations for the final condition of this project (will an updated orifice plate be required?). Also provide forebay and trickle channel calcs.

APPENDIX D – DRAINAGE MAPS

DOMBROWSKI, COLIN 4/20/2026 1:31 PM

MATCHLINE: SEE SHEET 2

TRACT B
CIMARRON HILLS SOUTHEA
MIXED USE FILING NO. 1

DP label should be at "bottom" of basin

30' ACCESS EASEMENT
REC. NO. 001001074

30' UTILITY EASEMENT
PER CIMARRON HILLS SOUTHEAST
MIXED USE FILING NO. 1 PLAT

50' UTILITY EASEMENT
PER CIMARRON HILLS SOUTHEAST
MIXED USE FILING NO. 1 FINAL PLAT

TRACT C
CIMARRON HILLS SOUTHEAST
MIXED USE FILING NO. 1

Label

LOT 1
CIMARRON HILLS SOUTHEAST
MIXED USE FILING NO. 1

B
13.79
0.50
0.80

Update coefficient values

OS
0.87
0.50
0.80

Total flows at this design point should include DP 4 & 5 flows

Label culvert and include flows

Include what flows are from this design point

10' ELECTRIC EASEMENT
REC. NO. 000751098

Ensure all easements are shown and labeled.
Verify with SF2420 plat.

AURA AT CROSSROADS
LOT 1 CROSSROADS
MIXED USE FILING NO. 1
(5408305001)

BLDG 6
FF=6300.52

15' STORM DRAIN EASEMENT
REC. NO. 222714975

10' UTILITY EASEMENT
REC. NO. 000617588

(MATCH EXIST.)

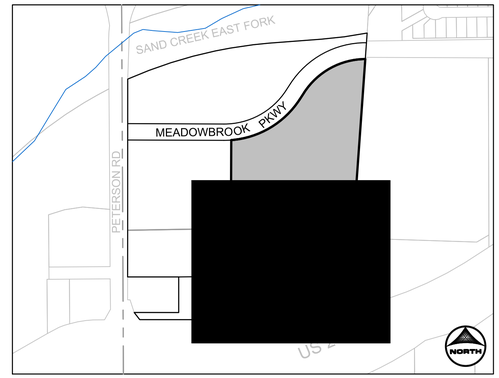
TRACT A

TRACT A CROSSROADS
MIXED USE FILING NO. 1
(5408305002)

20' PUBLIC UTILITY &
DRAINAGE EASEMENT
REC. NO. 222714975

TRACT B CROSSROADS
MIXED USE FILING NO. 1
(5408305003)

U.S. HIGHWAY 24
R.O.W. VARIES



KEY MAP
SCALE: 1" = 350'

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CURB & GUTTER		
DRAINAGE BASIN		
MAJOR CONTOUR	5900	5900
MINOR CONTOUR	5902	5902
STORM SEWER		
RETAINING WALL		
FLOW DIRECTION		
DESIGN POINT		X

BASIN LABEL — BASIN DESIGNATION: A1; AREA (AC.): 1.00; MINOR 5-YR RUNOFF COEF.: 0.40; MAJOR 100-YR RUNOFF COEF.: 0.60

NORTH
0 40
20

PCD FILE NO.:

DRAWN BY:	CMD	JOB DATE:	4/20/2026
APPROVED:	RDL	JOB NUMBER:	----
CAD DATE:	4/20/2026		
CAD FILE:	J:\2025\2502477\CAD\Dwgs\C\Drainage\Ex_Drainage_Map		

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

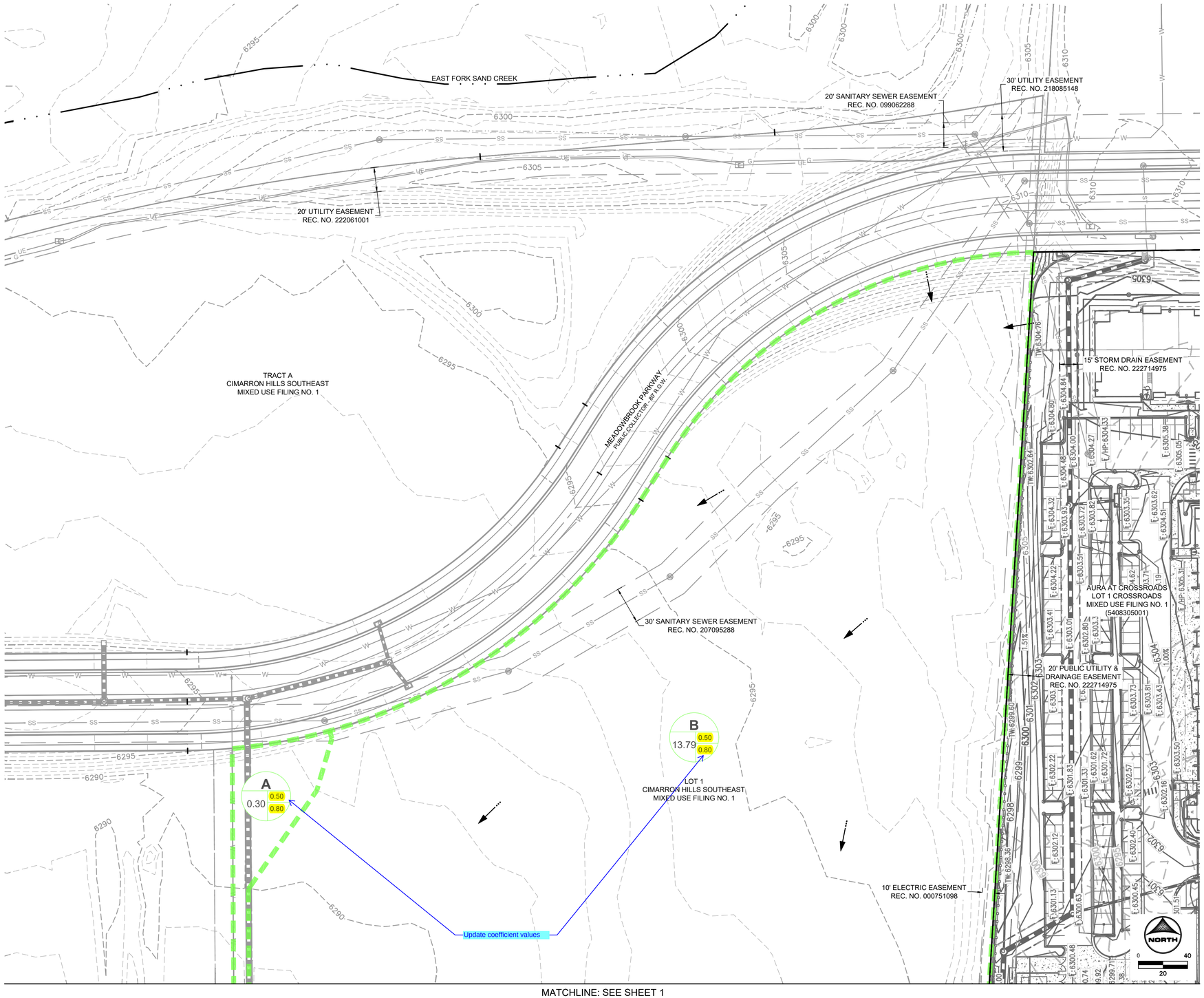
HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

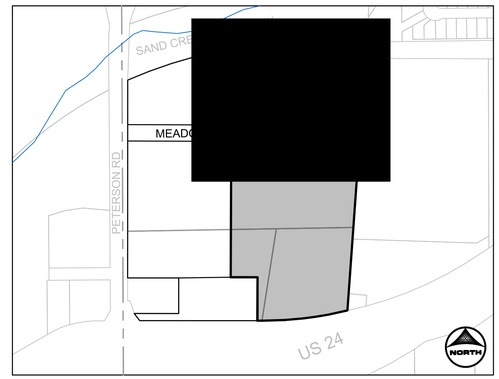
FINAL DRAINAGE REPORT
EXISTING DRAINAGE MAP

SHEET DR 1

HR GREEN Xrefs: 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-UTIL; KEY-MAP; TB_24x36_2502477-FDR

DOMBROWSKI, COLIN, 4/20/2026 1:35 PM





KEY MAP
SCALE: 1" = 350'

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CURB & GUTTER		
DRAINAGE BASIN		
MAJOR CONTOUR	5900	5900
MINOR CONTOUR	5902	5902
STORM SEWER		
RETAINING WALL		
FLOW DIRECTION		
DESIGN POINT		X

BASIN LABEL — BASIN DESIGNATION: A1; AREA (AC.): 1.00; MINOR 5-YR RUNOFF COEF.: 0.40; MAJOR 100-YR RUNOFF COEF.: 0.60

SUMMARY RUNOFF TABLE

BASIN	AREA (ac)	% IMPERVIOUS	Q_5 (cfs)	Q_{100} (cfs)
A	0.30	2	0.11	0.71
B	13.79	2	3.89	25.65
OS	0.87	2	0.28	1.87

MATCHLINE: SEE SHEET 1

PCD FILE NO.: _____

DRAWN BY: CMD JOB DATE: 4/20/2026
APPROVED: RDL JOB NUMBER: ----
CAD DATE: 4/20/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\Drainage\Ex_Drainage_Map

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

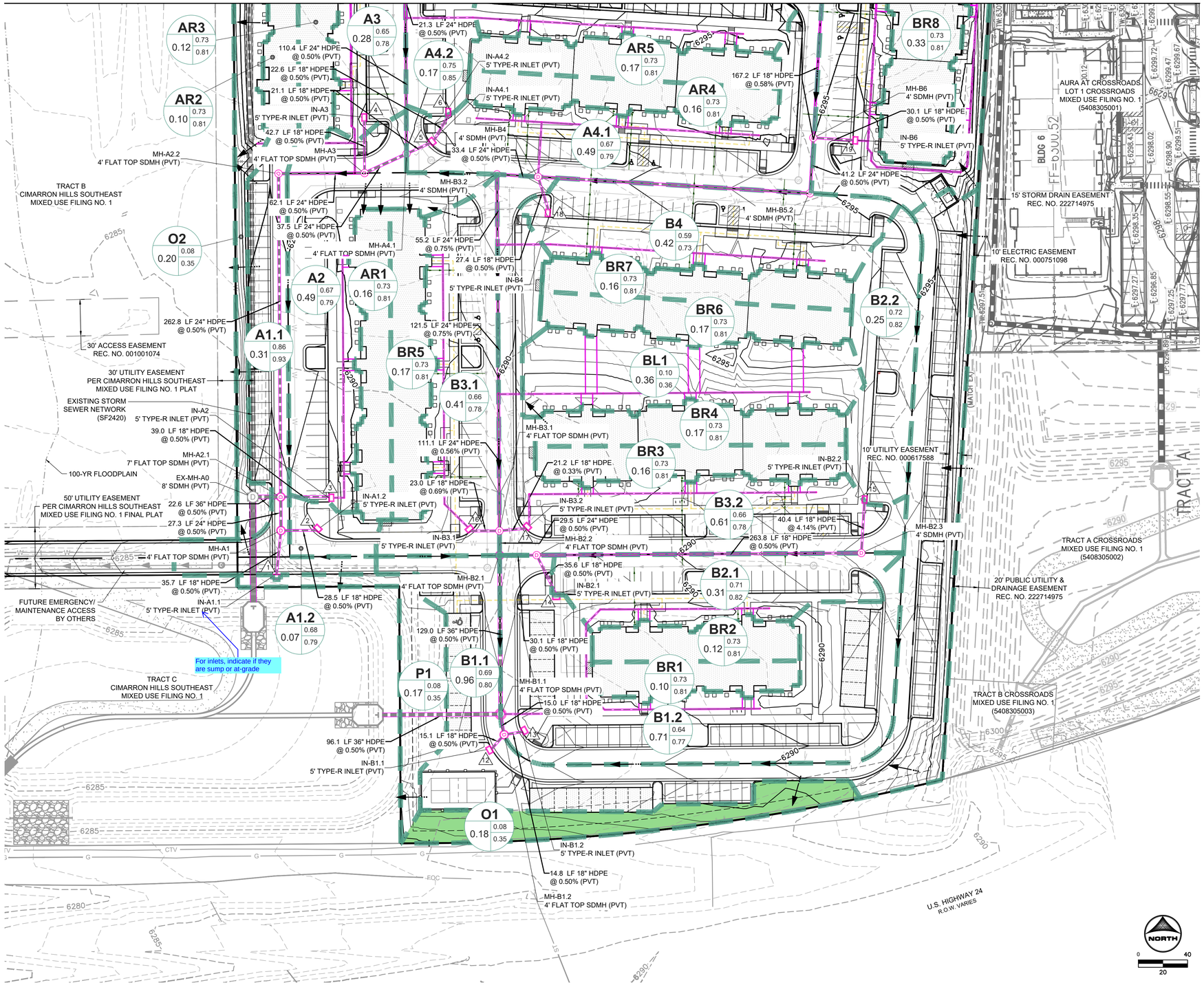
FINAL DRAINAGE REPORT
EXISTING DRAINAGE MAP

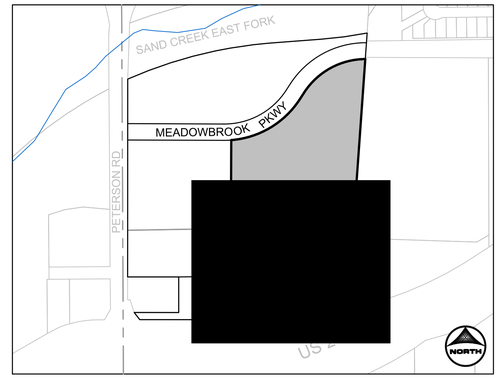
SHEET DR 2

HR GREEN Xrefs: 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-UTIL; KEY-MAP; TB_24x36_2502477-FDR

DOMBROWSKI, COLIN 4/20/2026 1:15 PM

MATCHLINE: SEE SHEET 4





KEY MAP
SCALE: 1" = 350'

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CURB & GUTTER		
DRAINAGE BASIN		
MAJOR CONTOUR	5900	5900
MINOR CONTOUR	5902	5902
STORM SEWER		
RETAINING WALL		
FLOW DIRECTION		
DESIGN POINT		
BASIN LABEL		

BASIN DESIGNATION: A1 | 1.00 | 0.40 (MINOR 5-YR RUNOFF COEF.) | 0.60 (MAJOR 100-YR RUNOFF COEF.) | AREA (AC.)

AREA EXCLUDED FROM WQ TREATMENT PER ECM APP I.7.1.B.7, TOTAL AREA = 0.18 AC.

PCD FILE NO.: _____

DRAWN BY: CMD	JOB DATE: 4/20/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: RDL	JOB NUMBER: ----		
CAD DATE: 4/20/2026			
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\Drainage\Pr_Drainage_Map			

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

FINAL DRAINAGE REPORT
PROPOSED DRAINAGE MAP

SHEET DR 3

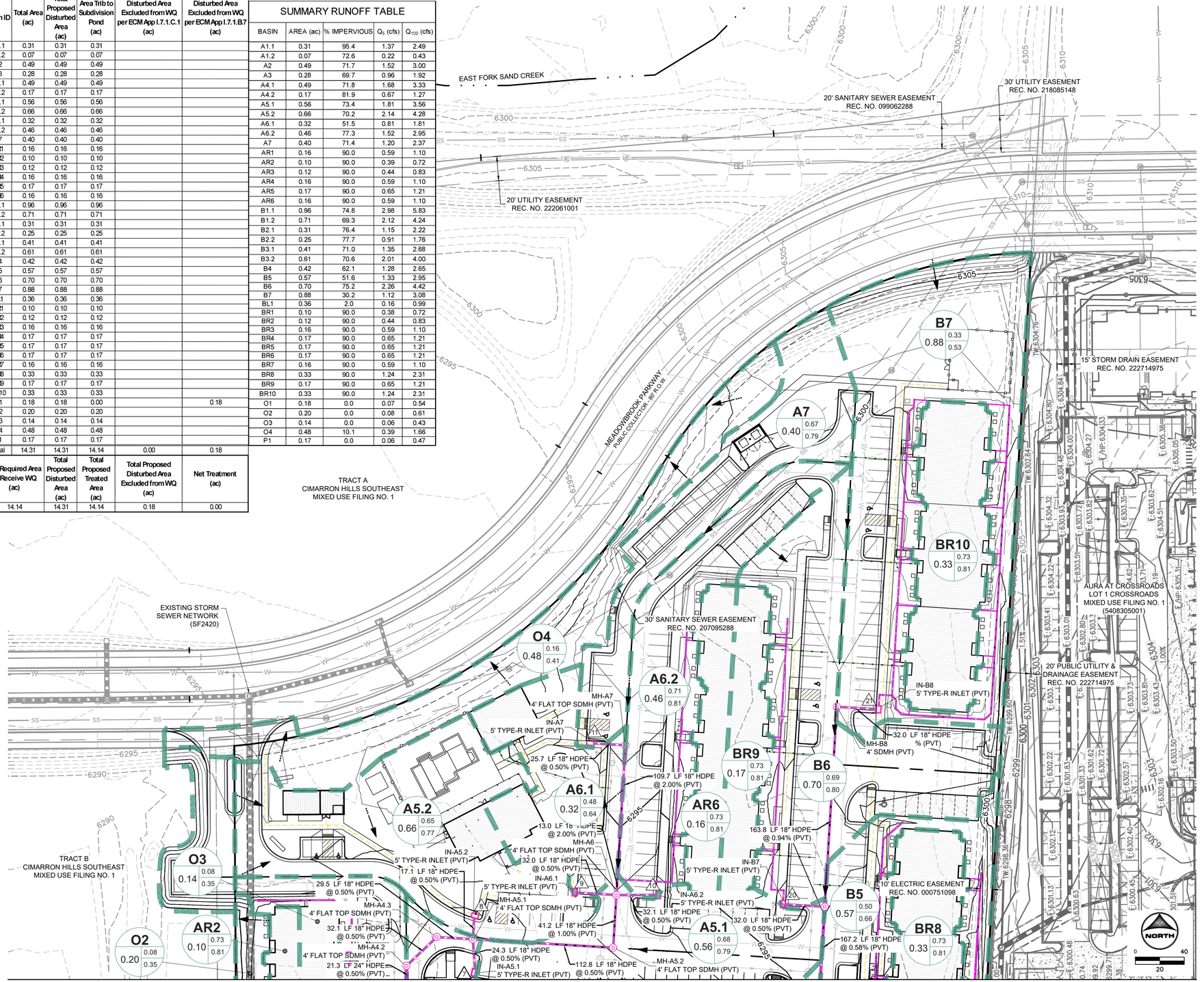
HR GREEN Xrefs: 01-XC-UTIL; 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-UTIL; 01-XC-DSGN; 01-XC-ROW; KEY-MAP; TB_24x36_2502477-FDR

DOMBROWSKI, COLIN 4/21/2026 3:21 PM

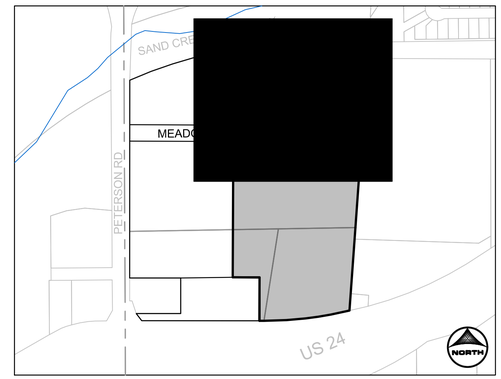
Water Quality Treatment Summary Table					
Basin ID	Total Area (ac)	Total Proposed Disturbed Area (ac)	Area Trib to Subdivision Pond (ac)	Disturbed Area Excluded from WQ per ECM App I.7.1.C.1 (ac)	Disturbed Area Excluded from WQ per ECM App I.7.1.B.7 (ac)
A1.1	0.31	0.31	0.31		
A1.2	0.07	0.07	0.07		
A2	0.49	0.49	0.49		
A3	0.28	0.28	0.28		
A4.1	0.49	0.49	0.49		
A4.2	0.17	0.17	0.17		
A5.1	0.56	0.56	0.56		
A5.2	0.66	0.66	0.66		
A6.1	0.32	0.32	0.32		
A6.2	0.46	0.46	0.46		
A7	0.40	0.40	0.40		
AR1	0.16	0.16	0.16		
AR2	0.10	0.10	0.10		
AR3	0.12	0.12	0.12		
AR4	0.16	0.16	0.16		
AR5	0.17	0.17	0.17		
AR6	0.16	0.16	0.16		
B1.1	0.96	0.96	0.96		
B1.2	0.71	0.71	0.71		
B2.1	0.31	0.31	0.31		
B2.2	0.25	0.25	0.25		
B3.1	0.41	0.41	0.41		
B3.2	0.61	0.61	0.61		
B4	0.42	0.42	0.42		
B5	0.57	0.57	0.57		
B6	0.70	0.70	0.70		
B7	0.88	0.88	0.88		
BL1	0.36	0.36	0.36		
BR1	0.10	0.10	0.10		
BR2	0.12	0.12	0.12		
BR3	0.16	0.16	0.16		
BR4	0.17	0.17	0.17		
BR5	0.17	0.17	0.17		
BR6	0.17	0.17	0.17		
BR7	0.16	0.16	0.16		
BR8	0.33	0.33	0.33		
BR9	0.17	0.17	0.17		
BR10	0.33	0.33	0.33		
O1	0.18	0.18	0.00		0.18
O2	0.20	0.20	0.20		
O3	0.14	0.14	0.14		
O4	0.48	0.48	0.48		
P1	0.17	0.17	0.17		
Total	14.31	14.31	14.14	0.00	0.18
Min Required Area to Receive WQ (ac)		Total Proposed Disturbed Area (ac)	Total Proposed Treated Area (ac)	Total Proposed Disturbed Area Excluded from WQ (ac)	Net Treatment (ac)
14.14		14.31	14.14	0.18	0.00

SUMMARY RUNOFF TABLE

BASIN	AREA (ac)	% IMPERVIOUS	Q_5 (cfs)	Q_{100} (cfs)
A1.1	0.31	95.4	1.37	2.49
A1.2	0.07	72.6	0.22	0.43
A2	0.49	71.7	1.52	3.00
A3	0.28	69.7	0.96	1.92
A4.1	0.49	71.8	1.68	3.33
A4.2	0.17	81.9	0.67	1.27
A5.1	0.56	73.4	1.81	3.56
A5.2	0.66	70.2	2.14	4.28
A6.1	0.32	51.5	0.81	1.81
A6.2	0.46	77.3	1.52	2.95
A7	0.40	71.4	1.20	2.37
AR1	0.16	90.0	0.59	1.10
AR2	0.10	90.0	0.39	0.72
AR3	0.12	90.0	0.44	0.83
AR4	0.16	90.0	0.59	1.10
AR5	0.17	90.0	0.65	1.21
AR6	0.16	90.0	0.59	1.10
B1.1	0.96	74.8	2.98	5.83
B1.2	0.71	69.3	2.12	4.24
B2.1	0.31	76.4	1.15	2.22
B2.2	0.25	77.7	0.91	1.76
B3.1	0.41	71.0	1.35	2.68
B3.2	0.61	70.6	2.01	4.00
B4	0.42	62.1	1.28	2.65
B5	0.57	51.6	1.33	2.95
B6	0.70	75.2	2.26	4.42
B7	0.88	30.2	1.12	3.08
BL1	0.36	2.0	0.16	0.99
BR1	0.10	90.0	0.38	0.72
BR2	0.12	90.0	0.44	0.83
BR3	0.16	90.0	0.59	1.10
BR4	0.17	90.0	0.65	1.21
BR5	0.17	90.0	0.65	1.21
BR6	0.17	90.0	0.65	1.21
BR7	0.16	90.0	0.59	1.10
BR8	0.33	90.0	1.24	2.31
BR9	0.17	90.0	0.65	1.21
BR10	0.33	90.0	1.24	2.31
O1	0.18	0.0	0.07	0.54
O2	0.20	0.0	0.08	0.61
O3	0.14	0.0	0.06	0.43
O4	0.48	10.1	0.39	1.66
P1	0.17	0.0	0.06	0.47



MATCHLINE: SEE SHEET 3



KEY MAP
SCALE: 1" = 350'

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CURB & GUTTER		
DRAINAGE BASIN		
MAJOR CONTOUR	5900	5900
MINOR CONTOUR	5902	5902
STORM SEWER		
RETAINING WALL		
FLOW DIRECTION		
DESIGN POINT		X
BASIN LABEL		BASIN DESIGNATION: A1; AREA (AC.): 1.00; MINOR 5-YR RUNOFF COEF.: 0.40; MAJOR 100-YR RUNOFF COEF.: 0.60

AREA EXCLUDED FROM WQ TREATMENT PER ECM APP I.7.1.B.7, TOTAL AREA = 0.18 AC.

DESIGN POINT SUMMARY TABLE

DESIGN POINT	CONTRIBUTING BASINS	ΣQ_5 (cfs)	ΣQ_{100} (cfs)
1	A1.1	1.37	2.49
2	A1.2	0.22	0.43
3	A2, AR1	2.11	4.10
4	A3	0.96	1.92
5	A4.1, A4.2	2.35	4.60
6	A4.2	0.67	1.27
7	A5.1	1.81	3.56
8	A5.2	2.14	4.28
9	A6.1	0.81	1.81
10	A6.2	1.52	2.95
11	A7	1.20	2.37
12	B1.1	2.98	5.83
13	B1.2	2.12	4.24
14	B2.1	1.15	2.22
15	B2.2	0.91	1.76
16	B3.1, BR5	2.00	3.89
17	B3.2	2.01	4.00
18	B4	1.28	2.65
19	B5, BR8	2.57	5.27
20	B6, BR9	2.91	5.63
21	B7, BR10	2.37	5.39

Several of the building basins do not appear to have been taken into account with the design points. See comment in report.

PCD FILE NO.:

DRAWN BY: CMD	JOB DATE: 4/20/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1"	
APPROVED: RDL	JOB NUMBER: ----	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD DATE: 4/21/2026			
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\Drainage\Pr_Drainage_Map			

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

FINAL DRAINAGE REPORT
PROPOSED DRAINAGE MAP

SHEET DR 4

HR GREEN Xrefs: 01-XC-UTIL; 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-UTIL; 01-XC-DSGN; 01-XC-ROW; KEY-MAP; TB_24x36_2502477-FDR

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Y - Satisfies criteria

N - Needs to be addressed

EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: PPR2613

		Applicant	EPC
Part I. Grading and Erosion Control Plan (Note: complete form using Y, N, N/A in the "Applicant" column)			
A	Vicinity map	X	Y
B	North arrow and acceptable scale (1"=20' to 1"=100')	X	Y
C	Labels for adjacent city/town/jurisdictional boundaries, subdivision names, and property parcel numbers	X	Y
D	Legend for all symbols used in the plan	X	N
E	Existing and proposed property lines, including proposed subdivision boundaries for subdivision projects. Disturbances outside of property line require written permission from owner	X	Y
F	Existing structures	X	Y
G	Existing utilities	X	Y
H	Existing and proposed easements (permanent and construction), including required off-site easements	X	Y
I	FEMA 100-yr floodplain	X	Y
J	Location and names of all springs, streams, wetlands, diversions, and other state waters within or bordering the site, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving state water. Show maintenance of pre-existing vegetation within 50 feet of a receiving water	N/A	N/A
K	Existing vegetation (notes are acceptable in cases where there is no notable vegetation, only grasses/weeds, or site has already been stripped)	X	Y
L	Proposed construction site boundaries and limits of disturbance. Show each as separate line types on the legend and map, unless they are the same, then show as "limits of disturbance and limits of construction site"	X	Y
M	Existing and proposed contours 2 feet or less	X	Y
N	Existing and proposed flow arrows depicting stormwater flow directions on and off-site	X	Y
O	Proposed areas of cut and fill	X	Y
P	All proposed temporary construction control measures, structural and non-structural. Temporary construction control measures shall be identified by phase of implementation to include "initial," "interim," and "final" or shown on separate phased maps identifying each phase	X	Y
Q	Proposed slopes steeper than 3:1 with top and toe of slope delineated. Erosion control blanketing or other protective covering required	X	Y
R	Areas used for staging, storage of building materials, storage of soils (stockpiles) or waste accumulation, including areas for liquid, concrete, masonry, and asphalt	X	Y
S	Vehicle tracking provided at all construction entrances/exits. Construction fencing, barricades, and/or signage provided at access points not to be used for construction	X	Y
T	Location of any dedicated asphalt or concrete batch plants and masonry mixing stations	N/A	N/A

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EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: _____

		Applicant	EPC
U	Location of all stream crossings located within the construction site boundary and provide a detail for the temporary crossing	X	N/A
V	Dewatering operations to include locations of diversion, pump and discharge(s) as anticipated at time of design	N/A	N/A
W	Temporary sediment ponds provided for disturbed drainage areas greater than 1 acre	X	Y
X	Details for all proposed temporary construction control measures to include information on dimensions, installation, materials, and maintenance requirements. Custom or other jurisdiction's details used must meet or exceed EPC standards	X	Y
Y	Location and name(s) of all existing and proposed Permanent Controls Measures (PCMs) that the site is tributary to, including conveyance systems (e.g., piping, roadside ditches, irrigation ditches, other non-state waters)	X	N
Z	Identify and incorporate recommended mitigation outlined in the Soils Report regarding slopes, embankments, materials, groundwater, etc	X	Y
AA	For standalone GEC Plan, include the following text (to be signed and stamped by a Colorado P.E.): Engineer's Statement: This Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this plan. _____ _____ Engineer of Record Signature Date	X	Y
BB	For GEC Plan within Construction Drawing set, include the following text (to be signed and stamped by a Colorado P.E.): Engineer's Statement: These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway, and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications. _____ _____ Engineer of Record Signature Date	N/A	N/A

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EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: _____

		Applicant	EPC
CC	For standalone GEC Plan, include the following text: Owner's Statement: I, the owner/developer, have read and will comply with the requirements of the Grading and Erosion Control Plan. _____ _____ Owner Signature Date	X	Y
DD	For GEC Plan within Construction Drawing set, include the following text: Owner's Statement: I, the owner/developer, have read and will comply with the requirements of the Grading and Erosion Control Plan and all of the requirements specified in these detailed plans and specifications. _____ _____ Owner Signature Date	N/A	N/A
EE	Include the following text: El Paso County: County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/ or accuracy of this document. Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual, as amended. In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion. _____ _____ Joshua Palmer, P.E. Date County Engineer/ECM Administrator	X	Y

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The checklist items are up to date on this form but the standard notes are outdated. The notes on the submitted GEC plan are correct so no revision is needed but I've attached the current GEC Checklist for future use.

EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: _____

		Applicant	EPC
Part II. Standard Notes For El Paso County Grading and Erosion Control Plans			
1	Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.	X	
2	Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual Volume 1 and 2. Any deviations from regulations and standards must be requested, and approved, in writing.		
3	Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP shall be located on-site at all times during construction and shall be kept up to date with work progress and changes in the field.		
4	Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC Plan or CDs with GEC Plans. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.		
5	Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.		
6	All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan and shown on the Grading and Erosion Control Plan.		
7	Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.		
8	Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.		
9	All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that effect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.		

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EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: _____

		Applicant	EPC
10	Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.	X	
11	Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).		
12	Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off-site.		
13	Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to be discharged offsite or to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.		
14	During dewatering operations, uncontaminated groundwater may be discharged on-site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.		
15	Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.		
16	Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes, or unused building materials shall be buried, dumped, or discharged at the site.		
17	Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.		
18	Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.		
19	The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.		
20	The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.		

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EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: _____

		Applicant	EPC
21	No chemical(s) having the potential to be released in stormwater are to be stored or used on-site unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.	X	
22	Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills on-site and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.		
23	No person shall cause the impediment of stormwater flow in curb and gutter, ponds, or ditches except with approved sediment control measures.		
24	Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, work-in-the-ROW, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.		
25	All construction traffic must enter/exit the site only at approved construction access points.		
26	Prior to construction the permittee shall verify the location of existing utilities.		
27	A water source shall be available on-site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.		
28	If applicable, the approved Soils Report for this site shall be considered a part of these plans.		
29	At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact: Colorado Department of Public Health and Environment Water Quality Control Division WQCD – Permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: Permits Unit		

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EL PASO COUNTY
GRADING AND EROSION CONTROL CHECKLIST

EPC Project Number: _____

		Applicant	EPC
Part III. Applicant Comments			
a			
b			
c			

		Applicant	EPC
Part IV. Checklist Review Certifications (Note: these signature blocks are not necessary in the GEC Plan itself)			
a	Engineer of Record: The Grading and Erosion Control Plan was prepared under my direction and supervision and is complete and correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans. _____ _____ Engineer of Record Signature Date	X	
b	EPC Review Engineer: The Grading and Erosion Control Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request. _____ _____ EPC Review Engineer Date	X	

DOMBROWSKI, COLIN, 4/28/2026 10:14 AM

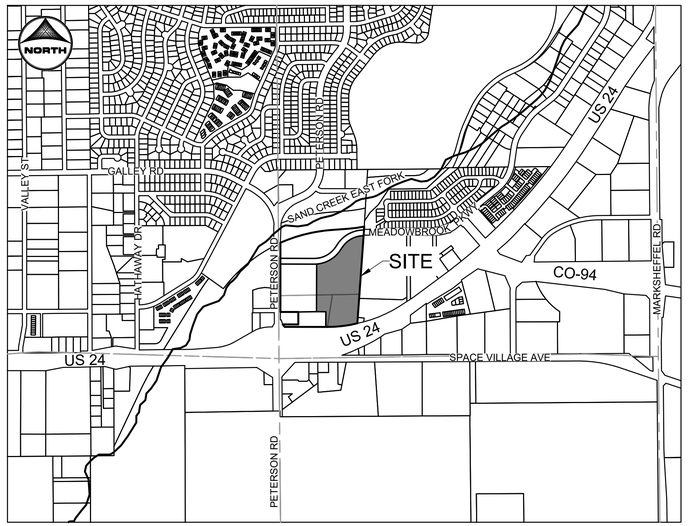
HILLPOINTE APARTMENTS AT PETERSON
GRADING & EROSION CONTROL PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

1. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE, AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY (EPC) STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE (LDC), THE ENGINEERING CRITERIA MANUAL (ECM), THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME 1 AND 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
2. A PRECONSTRUCTION MEETING BETWEEN THE PERMIT HOLDER(S) AND EL PASO COUNTY SHALL BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES. IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER(S) TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF. NO LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES BEYOND THE INSTALLATION OF THE INITIAL CONSTRUCTION CONTROL MEASURES (CCMS), AS INDICATED ON THE APPROVED GEC PLAN OR CDS WITH GEC PLANS, MAY OCCUR PRIOR TO RECEIVING A NOTICE TO PROCEED (NTP) ISSUED BY THE ECM ADMINISTRATOR. FAILURE TO OBTAIN A NOTICE TO PROCEED PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES MAY RESULT IN AN IMMEDIATE STOP WORK ORDER (SWO).
3. CONSTRUCTION CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. STORMWATER RUNOFF FROM ALL DISTURBED AREAS AND SOIL STORAGE AREAS MUST UTILIZE OR FLOW TO ONE OR MORE CCM(S) TO MINIMIZE EROSION OR SEDIMENT IN THE DISCHARGE. THE CCM(S) MUST CONTAIN OR FILTER FLOWS IN ORDER TO PREVENT THE BYPASS OF FLOWS WITHOUT TREATMENT AND MUST BE APPROPRIATE FOR STORMWATER RUNOFF FROM DISTURBED AREAS AND FOR THE EXPECTED FLOW RATE, DURATION, AND FLOW CONDITIONS (E.G., SHEET OR CONCENTRATED FLOW).
4. ALL CCMS SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED. THE QUALIFIED STORMWATER MANAGER (QSM) SHALL ASSESS THE ADEQUACY OF CCMS AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CCMS ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CCMS.
5. PRIOR TO CONSTRUCTION THE PERMIT HOLDER(S) SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
6. MANAGEMENT OF THE STORMWATER MANAGEMENT PLAN (SWMP) DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QSM. THE SWMP SHALL BE LOCATED ON-SITE OR DIGITALLY ACCESSIBLE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES AND MUST BE IMPLEMENTED AS WRITTEN FROM THE START OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS ACHIEVED. THE QSM SHALL AMEND THE SWMP WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE SITE WHICH WOULD REQUIRE THE IMPLEMENTATION OF NEW OR REVISED CCMS OR IF THE SWMP PROVES TO BE INEFFECTIVE IN CONTROLLING POLLUTANTS IN STORMWATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY OR WHEN CCMS ARE NO LONGER NECESSARY AND ARE REMOVED. THE QSM SHALL MAINTAIN A RECORD OF AMENDMENTS MADE TO THE SWMP THAT INCLUDES THE DATE AND IDENTIFICATION OF THE CHANGES.
7. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A RECEIVING WATER UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED. IN ADDITION TO MAINTAINING 50 HORIZONTAL FEET OF PRE-EXISTING VEGETATION UPGRADIENT OF A RECEIVING WATER (UNLESS INFEASIBLE AND APPROVED), THE PERMIT HOLDER(S) MUST INSTALL CCMS UPGRADIENT OF THE VEGETATIVE BUFFER.
8. TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
9. EROSION CONTROL BLANKET (ECB) OR OTHER APPROVED CONTROL MEASURE(S) SHALL BE USED ON SLOPES STEEPER THAN 3:1.
10. VEHICLE TRACKING CONTROLS (VTC) MUST BE IMPLEMENTED TO MINIMIZE VEHICLE TRACKING OF SEDIMENT FROM DISTURBED AREAS. VTCS MUST INCLUDE A STRUCTURE CONTROL MEASURE (E.G., TRACKING PAD) AND MAY INCLUDE A NON-STRUCTURAL CONTROL MEASURE (E.G., SWEEPING). MATERIAL TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
11. ANY TEMPORARY OR PERMANENT CONTROL MEASURE DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.
12. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER, PERMANENT CONTROL MEASURES (PCMS), OR DITCHES EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
13. ALL PCMS SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PCMS MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
14. SOIL COMPACTION MUST BE MINIMIZED IN AREAS WHERE INFILTRATION PCMS WILL BE INSTALLED OR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION PCMS SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF SOIL COMPACTION DOES OCCUR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER OR IN AREAS WHERE INFILTRATION PCMS WILL BE INSTALLED, DECOMPACTION OF THE SOIL MUST BE COMPLETED PRIOR TO PLANTING OR INSTALLATION OF THE PCM(S). AN INFILTRATION TEST MUST BE CONDUCTED FOR ALL INFILTRATION PCMS AND THE INFILTRATION TEST RESULTS SUBMITTED TO EL PASO COUNTY PRIOR TO PRELIMINARY ACCEPTANCE (PA).
15. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND PERMANENT STABILIZATION METHODS ARE COMPLETE. WHEN USING VEGETATIVE COVER AS A PERMANENT STABILIZATION METHOD, THE VEGETATION SHALL BE EVENLY DISTRIBUTED PERENNIAL VEGETATION AND OF THE VARIETY AND SPECIES FOUND IN THE COUNTY-APPROVED SEED MIXES OR IN THE APPROVED GEC PLAN. VEGETATION COVERAGE SHALL BE, AT A MINIMUM, EQUAL TO 70% OF WHAT WOULD HAVE BEEN PROVIDED BY NATIVE VEGETATION IN A LOCAL, UNDISTURBED AREA OR ADEQUATE REFERENCE SITE. ALL TEMPORARY CCMS SHALL BE REMOVED UPON FINAL STABILIZATION AND PRIOR TO STORMWATER PERMIT TERMINATION.
16. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
17. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO BE DISCHARGED OFFSITE OR TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR CONTROL MEASURES. CONCRETE WASHOUT AREAS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK, OR STREAM.
18. DURING CONSTRUCTION DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE IN ACCORDANCE WITH THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT'S (CDPHE) LOW RISK DISCHARGE GUIDANCE POLICY FOR DISCHARGES OF UNCONTAMINATED GROUNDWATER TO LAND. IF CONSTRUCTION DEWATERING OPERATIONS ARE UNABLE TO MEET ALL CRITERIA, CONDITIONS, AND CONTROL MEASURE REQUIREMENTS OF THE LOW RISK DISCHARGE GUIDANCE POLICY, A COLORADO DISCHARGE PERMIT SYSTEM (CDPS) GENERAL PERMIT COG080000 WILL BE REQUIRED.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTE FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
20. THE PERMIT HOLDER(S) SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
21. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
22. MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. APPROPRIATE CMS SHALL BE UTILIZED BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
23. BULK STORAGE (I.E., INDIVIDUAL CONTAINERS OF 55 GALLONS OR GREATER) OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT, OR EQUIVALENT PROTECTION, TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM, OR OTHER FACILITIES.
24. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
25. ON AREAS OF EXPOSED SOIL, MINIMIZE DUST THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES. WATER APPLICATION MUST BE CONDUCTED IN A MANNER TO PREVENT DISCHARGE OFFSITE UNLESS AUTHORIZED BY A CDPS OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
26. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
27. FOR SITES WHERE A SOILS REPORT IS REQUIRED, THE APPROVED SOILS REPORT FOR THIS SITE SHALL BE CONSIDERED A PART OF THESE PLANS.
28. PERMIT HOLDER(S) AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUME 2, AND ENGINEERING CRITERIA MANUAL. ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS MUST BE OBTAINED PRIOR TO CONSTRUCTION. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE OR LESS THAN 1 ACRE AND PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT WOULD DISTURB 1 OR MORE ACRES, THE PERMIT HOLDER(S) SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE (COR400000 PERMIT) TO THE CDPHE WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A SWMP, OF WHICH THIS GEC PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT



VICINITY MAP
SCALE: 1" = 1000'

SHEET INDEX

1 - COVER
2 - INITIAL NORTH
3 - INITIAL SOUTH
4 - INTERIM NORTH
5 - INTERIM SOUTH
6 - FINAL NORTH
7 - FINAL SOUTH
8 - GEC DETAILS
9 - GEC DETAILS
10 - GEC DETAILS

LEGAL DESCRIPTION:

LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1

EL PASO COUNTY

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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JOSHUA J. PALMER, P.E. — DATE
COUNTY ENGINEER

ENGINEER'S STATEMENT

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

RICHARD D. LYON, PE — DATE
COLORADO P.E. 53921

OWNER'S STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

MARK FOSTER — DATE
VICE PRESIDENT OF DEVELOPMENT
HILLPOINTE, LLC.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
BARBED WIRE FENCE		
WOODEN FENCE		
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN	G	G
SANITARY SEWER		
STORM DRAIN		
LANDSCAPE DRAIN		
ROOF DRAIN		
WATER MAIN	W	W
SWALE		
TRAIL		
ADA ROUTE		
CURB & GUTTER		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		

STORM SEWER	EXISTING	PROPOSED
MANHOLE		
STORM INLET		
LANDSCAPE DOME INLETS		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER	
CLEAN OUT	
MANHOLE	S
PLUG	

WATER		
FIRE HYDRANT		
FIRE DEPT. CONNECTION		
GATE VALVE		
MANHOLE	W	W
METER		
TEE		
REDUCER		

DRY UTILITIES	
ELECTRIC METER	
ELECTRIC PEDESTAL	
ELECTRICAL CABINET	
ELECTRIC VAULT	
ELECTRIC VEHICLE CHARGER	
FIBER OPTIC PULL BOX	
FIBER OPTIC MANHOLE	
FIBER OPTIC PEDESTAL	
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	
GAS METER	
GAS SIGN	
GAS VAULT	
TRANSFORMER	
LIGHT POLE	

MISCELLANEOUS	
SIGN	
BOLLLARD	
ACCESSIBLE PARKING	
PARKING COUNT	10

GEC LEGEND:

		PHASE:
SF	SILT FENCE	INITIAL/INTERIM
SSA	STABILIZED STAGING AREA	INITIAL/INTERIM
SP	STOCKPILE MANAGEMENT	INITIAL/INTERIM
CIP	CULVERT INLET PROTECTION	INTERIM
VTC	VEHICLE TRACKING CONTROL	INITIAL
DS	DRAINAGE SWALE	INTERIM
RS	ROCK SOCKS	INTERIM
LOC	LIMITS OF CONSTRUCTION	INITIAL/INTERIM/FINAL
LOD	LIMITS OF DISTURBANCE	INITIAL/INTERIM/FINAL
	CUT CONDITION	
	FILL CONDITION	
	FLOW DIRECTION	
ECB	EROSION CONTROL BLANKET	INTERIM/FINAL
CD	CHECK DAM (STRAW BALE)	INTERIM
CWA	CONCRETE WASH OUT	INITIAL
TSB	TEMPORARY SEDIMENT BASIN	INITIAL
	TSB TRIBUTARY AREA DELINEATION	INITIAL
TRM	TURF REINFORCED MAT	FINAL
SM	SEEDING & MULCHING	FINAL

PCD FILE NO.:

DRAWN BY: CMD — JOB DATE: 4/6/2026
APPROVED: RDL — JOB NUMBER: 211030.25
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\GEC\GEC-Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

GRADING & EROSION CONTROL PLAN
COVER

SHEET
CV

1

HR GREEN Xrefs: TB_24x36_2502477-CD

DOMBROWSKI, COLIN, 4/28/2026 10:14 AM

INITIAL PHASE CONSTRUCTION ACTIVITY:

INITIAL PHASE CONSTRUCTION ACTIVITY CONSISTS OF INSTALLATION OF PERIMETER CONTROL CONSTRUCTION CONTROL MEASURES (CCMS) INCLUDING SILT FENCE WHICH IS TO BE INSTALLED AT THE PROPERTY BOUNDARY OF LOT 1. SILT FENCE TO THE WEST AND SOUTH ARE AN EROSION AND SEDIMENT CONTROL MEASURE FOR THE EARTHWORK TO TAKE PLACE INTERNAL TO THE SITE. SILT FENCE AT THE EAST OF THE PROPERTY IS UPSTREAM OF INTERNAL SITE EARTHWORK ACTIVITIES AND DOWNSTREAM FROM THE OFFSITE ADJACENT PROPERTY TO THE EAST. THE NORTHERN SILT FENCE IS A PERIMETER CONTRROL MEASURE AND DOES NOT EXPERIENCE ANY UPSTREAM OR DOWNSTREAM SEDIMENT TRANSPORT.

INITIAL PHASE CCM'S ARE INSTALLED AT THIS TIME PRIOR TO CONSTRUCTION ACTIVITY ON THE SITE INCLUDING VEHICLE TRACKING CONTROL ALONG THE EXISTING MEADOWBROOK PARKWAY ROADWAY IN THE AREA OF A FUTURE CURB CUT ACCESS, AND TWO MAIN AREAS OF STABILIZED STAGING AREAS AND STOCKPILE AREAS LOCATED TO THE NORTH AND SOUTH OF THE SITE FOR FLEXIBILITY IN STAGING AND STOCKPILING ACROSS THE SITE.

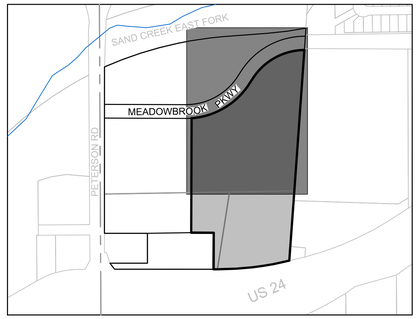
THREE (3) TEMPORARY SEDIMENT BASINS ARE DESIGNED FOR THE SITE TO CAPTURE SEDIMENT TRANSPORT OF THEIR RESPECTIVE TRIBUTARY AREAS DURING INITIAL EARTHWORK ACTIVITIES ON THE SITE. TSB 1 AND 2 ARE LOCATED ON FUTURE APARTMENT BUILDING PADS FOR EASE OF TRANSITION FROM TSB TO BACKFILLED FOUNDATION WORK DURING THE FINAL CONSTRUCTION PHASE. TSB 3 IS LOCATED IN THE AREA OF A FUTURE GARAGE STRUCTURE AND OPEN SPACE WITH FUTURE STORM MAIN. ALL TSB'S HAVE OUTLET RISER PIPES THAT OUTFALL INTO THE EXISTING PUBLIC METRO DISTRICT OWNED AND MAINTAIND FULL SPECTRUM DETENTION POND THAT IS A REGIONAL FACILITY FOR THIS DEVELOPMENT. ANY DISTURBANCE WITHIN THE POND FOR INSTALLATION OF THESE OUTFALL PIPES ARE ALLOWABLE BY THE METRO DISTRICT.

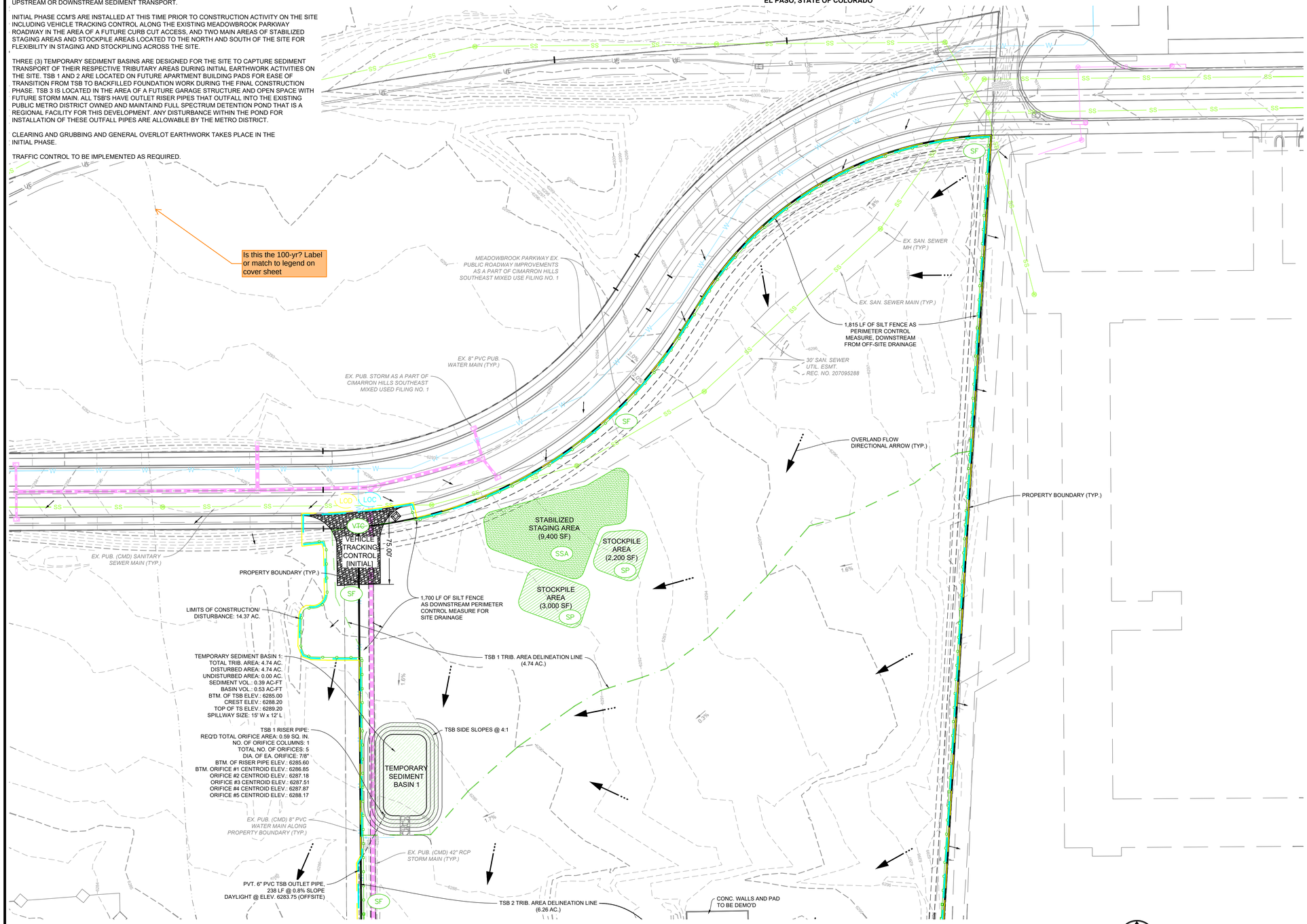
CLEARING AND GRUBBING AND GENERAL OVERLOT EARTHWORK TAKES PLACE IN THE INITIAL PHASE.

TRAFFIC CONTROL TO BE IMPLEMENTED AS REQUIRED.

HILLPOINTE APARTMENTS AT PETERSON
GRADING & EROSION CONTROL PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO





GEC LEGEND:

SF	SILT FENCE	INITIAL/INTERIM
SSA	STABILIZED STAGING AREA	INITIAL/INTERIM
SP	STOCKPILE MANAGEMENT	INITIAL/INTERIM
VTC	VEHICLE TRACKING CONTROL	INITIAL
CWA	CONCRETE WASH OUT	INITIAL
TSB	TEMPORARY SEDIMENT BASIN	INITIAL/INTERIM
LOC	LIMITS OF CONSTRUCTION	INITIAL/INTERIM/FINAL
LOD	LIMITS OF DISTURBANCE	INITIAL/INTERIM/FINAL
	TSB TRIBUTARY AREA DELINEATION	INITIAL
	FLOW DIRECTION	

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 8-10 FOR EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE EL PASO COUNTY STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
4. ALL GREATER THAN 4:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
6. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
7. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESE PLANS WILL BE AMENDED AS REQUIRED.
8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
9. ONSITE EXISTING VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
10. THE NATURAL TERTIARY SWALES DOWNSTREAM ARE TO BE PLATTED AS A PUBLIC DRAINAGE EASEMENTS WITH A VARIED WIDTHS AS A PART OF THOSE RESPECTIVE FILINGS AND ARE NOT INCLUDED IN THIS FILING.
11. ALL ROADSIDE DITCHES ARE TO HAVE PERMANENT TRM (ROLLMAX P300 OR EQUIV.) INSTALLED.
12. ALL CULVERTS ARE TO HAVE RIP-RAP INSTALLED AT OUTLET POINTS AS SEEN IN STORM CONSTRUCTION DRAWINGS.
13. ALL AREAS TO BE VEGETATED WITH SEEDING SHOULD ALSO BE TEMPORARILY STABILIZED VIA SURFACE ROUGHENING UNTIL SUCH TIME THAT FINAL SEEDING AND MULCHING OCCURS. SEE FINAL GEC PHASE FOR SEEDING AND MULCHING LIMITS, WHICH ARE ALL AREAS OF DISTURBANCE THAT ARE NOT PAVED.
14. AREAS OF DISTURBANCE OUTSIDE OF THE LOT 1 BOUNDARY ARE WITHIN THE PROPERTY OWNED BY THE MASTER DEVELOPER, VINTAGE DEVELOPMENT, AS A PART OF CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1. THE LOT 1 DEVELOPER HAS PERMISSION FROM THE MASTER DEVELOPER OF THE SUBDIVISION TO PERFORM CONSTRUCTION OUTSIDE OF THE LOT 1 AREA AS SHOWN ON THESE PLANS.

PCD FILE NO.: _____

DRAWN BY: CMD	JOB DATE: 4/20/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: RDL	JOB NUMBER: 2502477	0 1"	
CAD DATE: 4/28/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\GEC\GEC-Initial			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

GRADING AND EROSION CONTROL PLAN
INITIAL NORTH

SHEET GEC2

2

HR GREEN Xrefs: 01-XC-UTIL; 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-DSGN; 01-XC-ROW; KEY-MAP; TB_24x36_2502477-CD; 01-XC-GEC-INITIAL

DOMBROWSKI, COLIN, 4/28/2026 10:14 AM

INITIAL PHASE CONSTRUCTION ACTIVITY:

INITIAL PHASE CONSTRUCTION ACTIVITY CONSISTS OF INSTALLATION OF PERIMETER CONTROL CONSTRUCTION CONTROL MEASURES (CCMS) INCLUDING SILT FENCE WHICH IS TO BE INSTALLED AT THE PROPERTY BOUNDARY OF LOT 1. SILT FENCE TO THE WEST AND SOUTH ARE AN EROSION AND SEDIMENT CONTROL MEASURE FOR THE EARTHWORK TO TAKE PLACE INTERNAL TO THE SITE. SILT FENCE AT THE EAST OF THE PROPERTY IS UPSTREAM OF INTERNAL SITE EARTHWORK ACTIVITIES AND DOWNSTREAM FROM THE OFFSITE ADJACENT PROPERTY TO THE EAST. THE NORTHERN SILT FENCE IS A PERIMETER CONTROL MEASURE AND DOES NOT EXPERIENCE ANY UPSTREAM OR DOWNSTREAM SEDIMENT TRANSPORT.

INITIAL PHASE CCM'S ARE INSTALLED AT THIS TIME PRIOR TO CONSTRUCTION ACTIVITY ON THE SITE INCLUDING VEHICLE TRACKING CONTROL ALONG THE EXISTING MEADOWBROOK PARKWAY ROADWAY IN THE AREA OF A FUTURE CURB CUT ACCESS, AND TWO MAIN AREAS OF STABILIZED STAGING AREAS AND STOCKPILE AREAS LOCATED TO THE NORTH AND SOUTH OF THE SITE FOR FLEXIBILITY IN STAGING AND STOCKPILING ACROSS THE SITE.

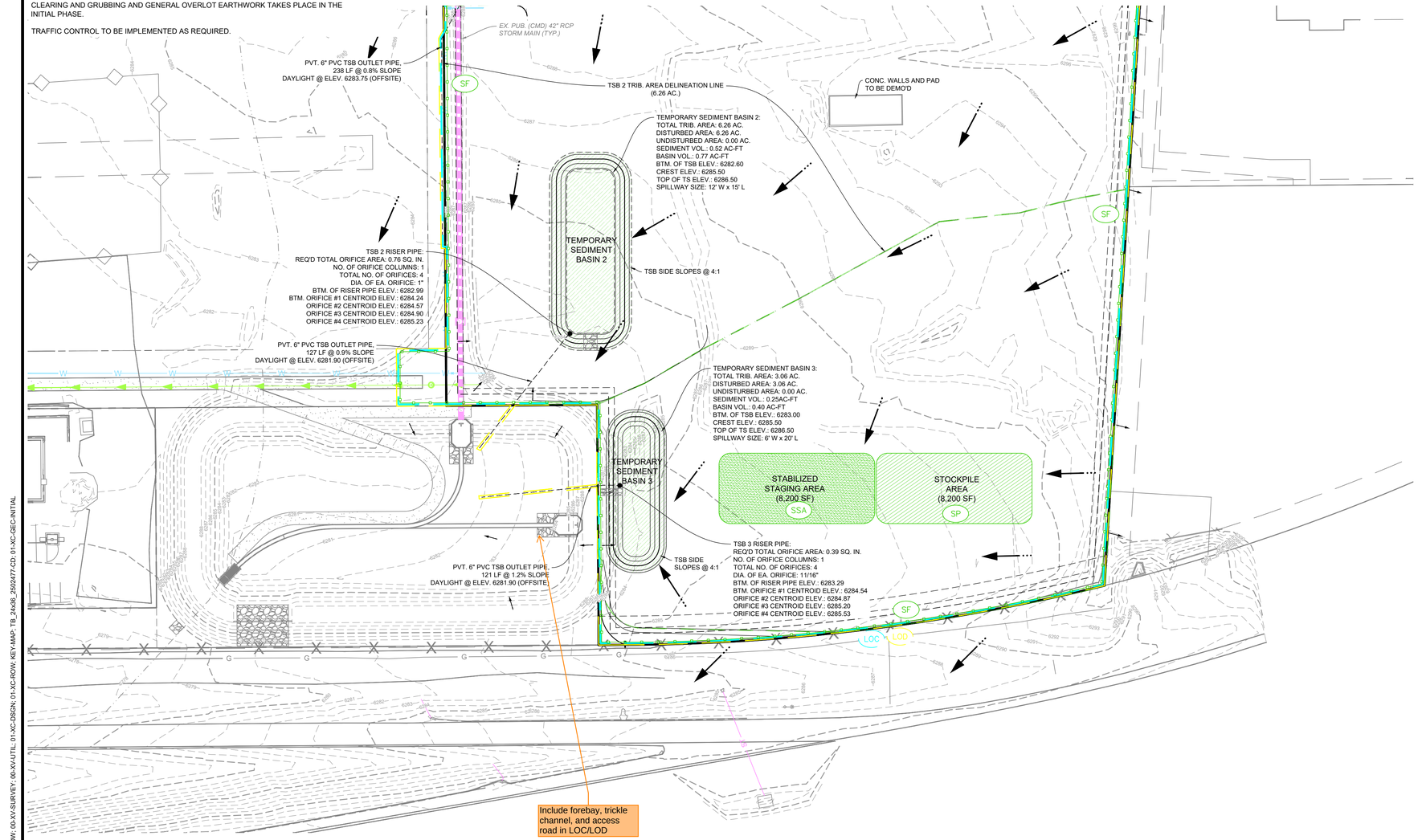
THREE (3) TEMPORARY SEDIMENT BASINS ARE DESIGNED FOR THE SITE TO CAPTURE SEDIMENT TRANSPORT OF THEIR RESPECTIVE TRIBUTARY AREAS DURING INITIAL EARTHWORK ACTIVITIES ON THE SITE. TSB 1 AND 2 ARE LOCATED ON FUTURE APARTMENT BUILDING PADS FOR EASE OF TRANSITION FROM TSB TO BACKFILLED FOUNDATION WORK DURING THE FINAL CONSTRUCTION PHASE. TSB 3 IS LOCATED IN THE AREA OF A FUTURE GARAGE STRUCTURE AND OPEN SPACE WITH FUTURE STORM MAIN. ALL TSB'S HAVE OUTLET RISER PIPES THAT OUTFALL INTO THE EXISTING PUBLIC METRO DISTRICT OWNED AND MAINTAIND FULL SPECTRUM DETENTION POND THAT IS A REGIONAL FACILITY FOR THIS DEVELOPMENT. ANY DISTURBANCE WITHIN THE POND FOR INSTALLATION OF THESE OUTFALL PIPES ARE ALLOWABLE BY THE METRO DISTRICT.

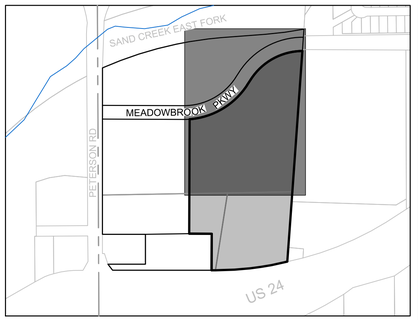
CLEARING AND GRUBBING AND GENERAL OVERLOT EARTHWORK TAKES PLACE IN THE INITIAL PHASE.

TRAFFIC CONTROL TO BE IMPLEMENTED AS REQUIRED.

HILLPOINTE APARTMENTS AT PETERSON
GRADING & EROSION CONTROL PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO





GEC LEGEND:

			PHASE:
SF	SILT FENCE		INITIAL/INTERIM
SSA	STABILIZED STAGING AREA		INITIAL/INTERIM
SP	STOCKPILE MANAGEMENT		INITIAL/INTERIM
VTC	VEHICLE TRACKING CONTROL		INITIAL
CWA	CONCRETE WASH OUT		INITIAL
TSB	TEMPORARY SEDIMENT BASIN		INITIAL/INTERIM
LOC	LIMITS OF CONSTRUCTION		INITIAL/INTERIM/FINAL
LOD	LIMITS OF DISTURBANCE		INITIAL/INTERIM/FINAL
	TSB TRIBUTARY AREA DELINEATION		INITIAL
	FLOW DIRECTION		

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 8-10 FOR EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS.
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3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
4. ALL GREATER THAN 4:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
6. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
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8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
9. ONSITE EXISTING VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
10. THE NATURAL TERTIARY SWALES DOWNSTREAM ARE TO BE PLATTED AS A PUBLIC DRAINAGE EASEMENTS WITH A VARIED WIDTHS AS A PART OF THOSE RESPECTIVE FILINGS AND ARE NOT INCLUDED IN THIS FILING.
11. ALL ROADSIDE DITCHES ARE TO HAVE PERMANENT TRM (ROLLMAX P300 OR EQUIV.) INSTALLED.
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NORTH
0 50
25

PCD FILE NO.: _____

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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

GRADING AND EROSION CONTROL PLAN
INITIAL SOUTH

SHEET GEC3 | 3

HR GREEN Xrefs: 01-XC-UTIL; 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-DSGN; 01-XC-ROW; KEY-MAP; TB_24x36_2502477-CD; 01-XC-GEC-INITIAL

DOMBROWSKI, COLIN, 4/28/2026 10:15 AM

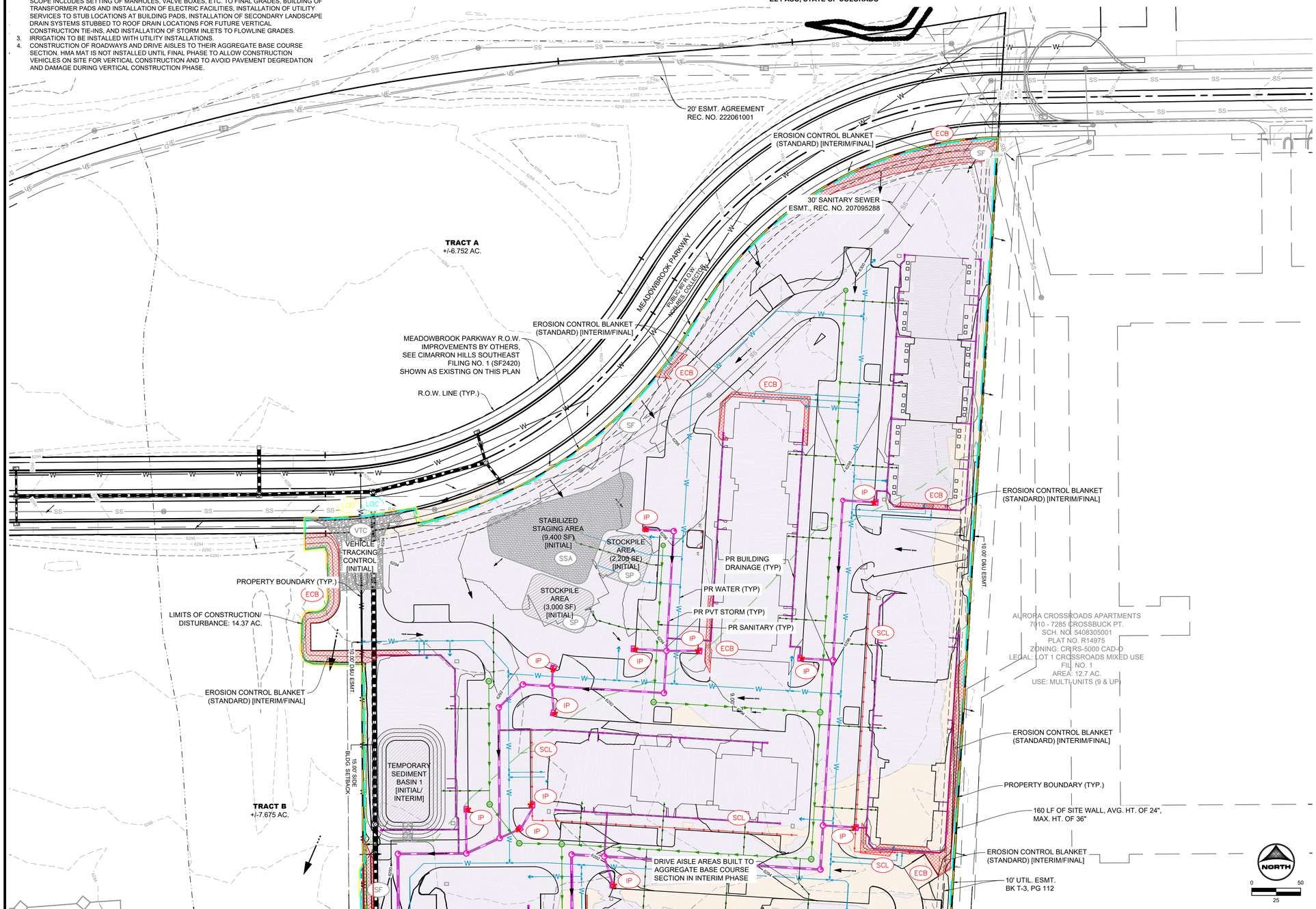
INTERIM PHASE CONSTRUCTION ACTIVITY:

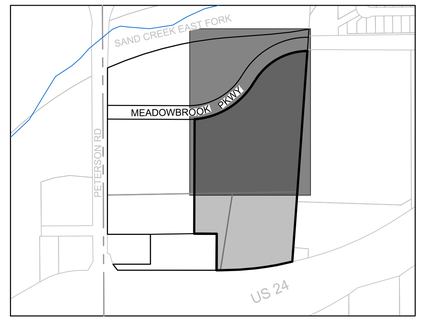
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1. ROADWAY / DRIVE AISLE CORRIDOR GRADING, BUILDING PAD GRADING TO BOTTOM-OF-FOOTER ELEVATIONS, AND GENERAL SITE GRADING TAKES PLACE TO NEAR-FINAL GRADE. NO DETAILED GRADING TO TAKE PLACE AT THIS PHASE.
2. UTILITY TRENCHING, INSTALLATION, AND BACKFILL FOR SANITARY SEWER, STORM, WATER, ELECTRIC, AND FIBER. BACKFILL REQUIREMENTS FOLLOW THAT OF THE RESPECTIVE AGENCY. SCOPE INCLUDES SETTING OF MANHOLES, VALVE BOXES, ETC. TO FINAL GRADES, BUILDING OF TRANSFORMER PADS AND INSTALLATION OF ELECTRIC FACILITIES, INSTALLATION OF UTILITY SERVICES TO STUB LOCATIONS AT BUILDING PADS, INSTALLATION OF SECONDARY LANDSCAPE DRAIN SYSTEMS STUBBED TO ROOF DRAIN LOCATIONS FOR FUTURE VERTICAL CONSTRUCTION TIE-INS, AND INSTALLATION OF STORM INLETS TO FLOWLINE GRADES.
3. IRRIGATION TO BE INSTALLED WITH UTILITY INSTALLATIONS.
4. CONSTRUCTION OF ROADWAYS AND DRIVE AISLES TO THEIR AGGREGATE BASE COURSE SECTION. HMA MAT IS NOT INSTALLED UNTIL FINAL PHASE TO ALLOW CONSTRUCTION VEHICLES ON SITE FOR VERTICAL CONSTRUCTION AND TO AVOID PAVEMENT DEGREDATION AND DAMAGE DURING VERTICAL CONSTRUCTION PHASE.

HILLPOINTE APARTMENTS AT PETERSON
GRADING & EROSION CONTROL PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO





GEC LEGEND:

		PHASE:
SF	SILT FENCE	INITIAL/INTERIM
SSA	STABILIZED STAGING AREA	INITIAL/INTERIM
SP	STOCKPILE MANAGEMENT	INITIAL/INTERIM
VTC	VEHICLE TRACKING CONTROL	INITIAL
CWA	CONCRETE WASH OUT	INITIAL
TSB	TEMPORARY SEDIMENT BASIN	INITIAL/INTERIM
ECB	EROSION CONTROL BLANKET	INTERIM/FINAL
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SCL	SEDIMENT CONTROL LOG	INITERIM
LOC	LIMITS OF CONSTRUCTION	INITIAL/INTERIM/FINAL
LOD	LIMITS OF DISTURBANCE	INITIAL/INTERIM/FINAL
	TSB TRIBUTARY AREA DELINEATION	INITIAL
	CUT CONDITION	
	FILL CONDITION	
	FLOW DIRECTION	

GRADING & EROSION CONTROL PLAN NOTES:

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EARTHWORK ESTIMATE:

CUT FACTOR: 1.00
FILL FACTOR: 1.15
CUT VOLUME(ADJUSTED): 3,856 CUBIC YARDS
FILL VOLUME(ADJUSTED): 49,430 CUBIC YARDS
NET VOLUME(ADJUSTED): 45,574 (CUT) CUBIC YARDS

CUT FACTOR: 1.00
FILL FACTOR: 1.00
CUT VOLUME(UNADJUSTED): 3,856 CUBIC YARDS
FILL VOLUME(UNADJUSTED): 42,982 CUBIC YARDS
NET VOLUME(UNADJUSTED): 39,126 (CUT) CUBIC YARDS

PCD FILE NO.: _____

DRAWN BY: CMD | JOB DATE: 4/23/2026
APPROVED: RDL | JOB NUMBER: 2502477
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HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
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HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

GRADING AND EROSION CONTROL PLAN
INTERIM NORTH

SHEET GEC4 | 4

HR GREEN X-refs: 01-XC-UTIL; 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-DSGN; 01-XC-ROW; KEY-MAP; TB_24x36_2502477-CD; 01-XC-GEC-INTERIM

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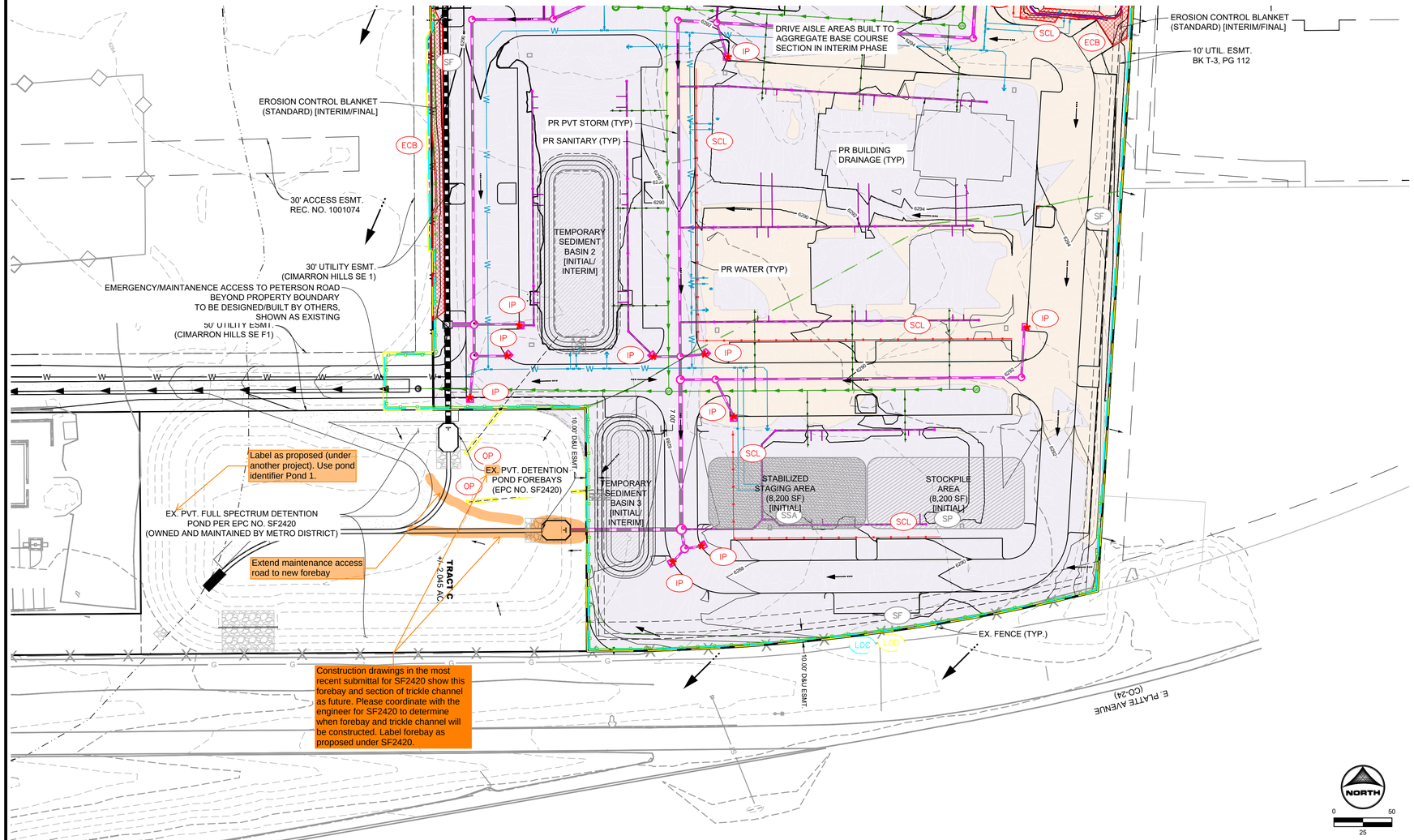
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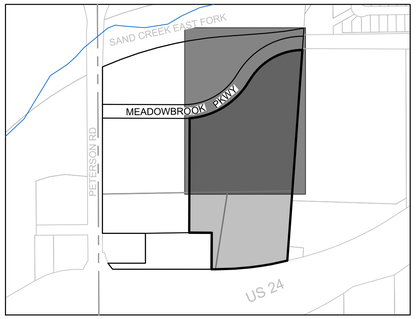
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HILLPOINTE APARTMENTS AT PETERSON
GRADING & EROSION CONTROL PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO





GEC LEGEND:

SF	SILT FENCE	INITIAL/INTERIM
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GRADING & EROSION CONTROL PLAN NOTES:

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NORTH
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COLORADO SPRINGS, EL PASO COUNTY, COLORADO

GRADING AND EROSION CONTROL PLAN
INTERIM SOUTH

SHEET GEC5 | 5

HR GREEN Xrefs: 01-XC-UTIL: 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL: 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL: 01-XC-DSGN; 01-XC-ROW; KEY-MAP- TB_24x36_2502477-CD; 01-XC-GEC-INTERIM

DOMBROWSKI, COLIN, 4/28/2026 10:15 AM

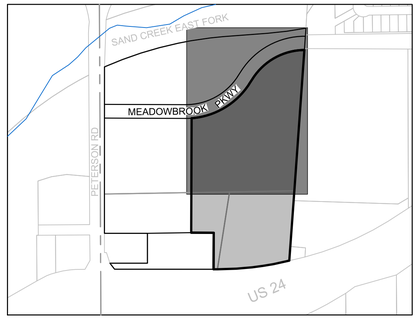
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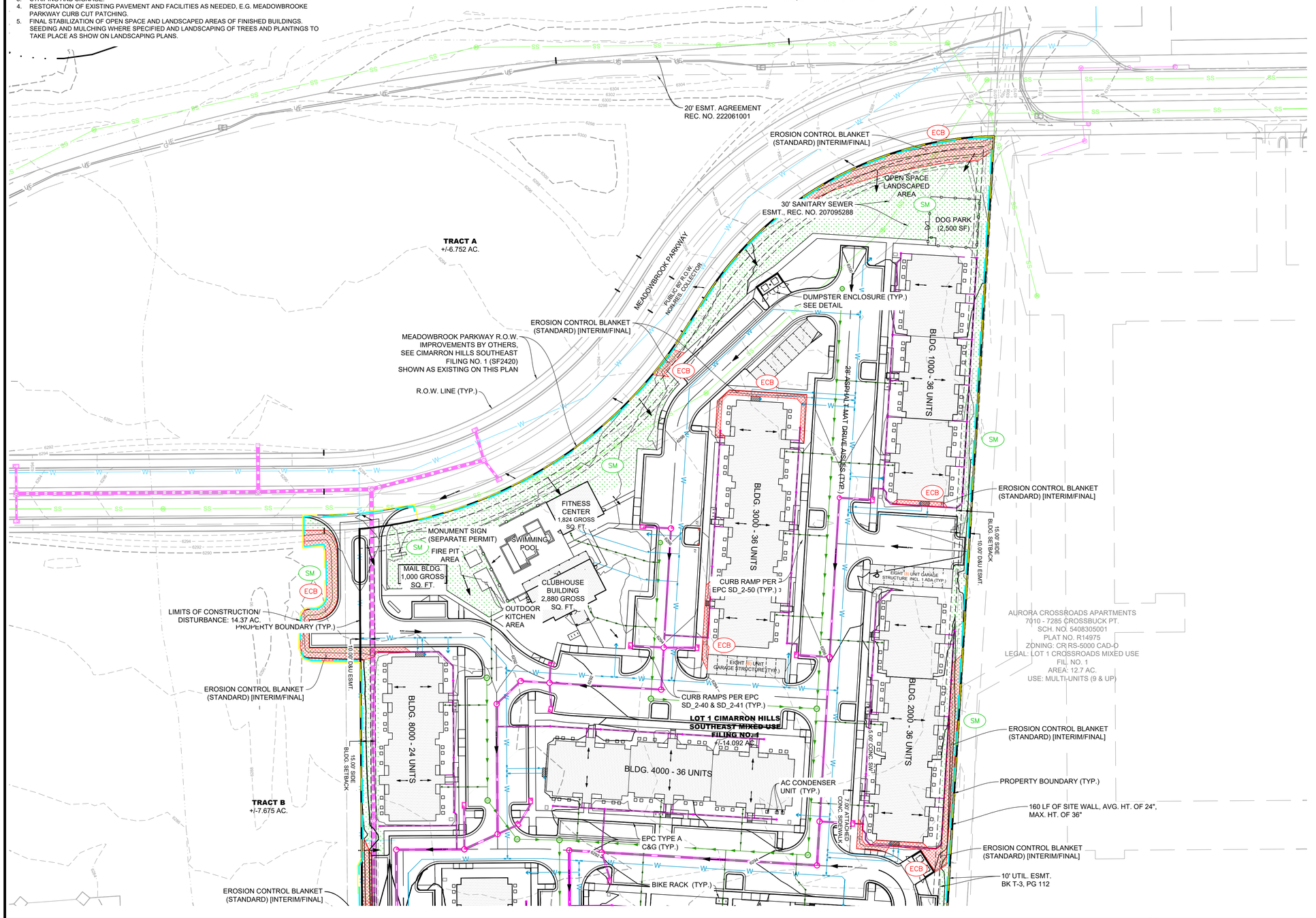
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3. STRIPING AND SIGNAGE.
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5. FINAL STABILIZATION OF OPEN SPACE AND LANDSCAPED AREAS OF FINISHED BUILDINGS. SEEDING AND MULCHING WHERE SPECIFIED AND LANDSCAPING OF TREES AND PLANTINGS TO TAKE PLACE AS SHOW ON LANDSCAPING PLANS.

HILLPOINTE APARTMENTS AT PETERSON
GRADING & EROSION CONTROL PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO





GEC LEGEND:

			PHASE:
SF	SILT FENCE		INITIAL/INTERIM
SSA	STABILIZED STAGING AREA		INITIAL/INTERIM
SP	STOCKPILE MANAGEMENT		INITIAL/INTERIM
VTC	VEHICLE TRACKING CONTROL		INITIAL
CWA	CONCRETE WASH OUT		INITIAL
TSB	TEMPORARY SEDIMENT BASIN		INITIAL
ECB	EROSION CONTROL BLANKET		INTERIM/FINAL
SM	SEEDING & MULCHING		FINAL
LOC	LIMITS OF CONSTRUCTION		INITIAL/INTERIM/FINAL
LOD	LIMITS OF DISTURBANCE		INITIAL/INTERIM/FINAL
	TSB TRIBUTARY AREA DELINEATION		INITIAL
	FLOW DIRECTION		

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 8-10 FOR EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS.
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3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
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9. ONSITE EXISTING VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
10. THE NATURAL TERTIARY SWALES DOWNSTREAM ARE TO BE PLATTED AS A PUBLIC DRAINAGE EASEMENTS WITH A VARIED WIDTHS AS A PART OF THOSE RESPECTIVE FILINGS AND ARE NOT INCLUDED IN THIS FILING.
11. ALL ROADSIDE DITCHES ARE TO HAVE PERMANENT TRM (ROLLMAX P300 OR EQUIV.) INSTALLED.
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EARTHWORK ESTIMATE:

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HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

GRADING AND EROSION CONTROL PLAN
FINAL NORTH

SHEET GEC6 | 6

HR GREEN X-refs: gec_plan_notes_EPC; 01-XC-UTIL; 00-XC-DSGN; 00-XC-ROW; 00-XC-UTIL; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-DSGN; 01-XC-ROW; KEY-MAP_TB_24x36_2502477-CD; 01-XC-GEC-FINAL

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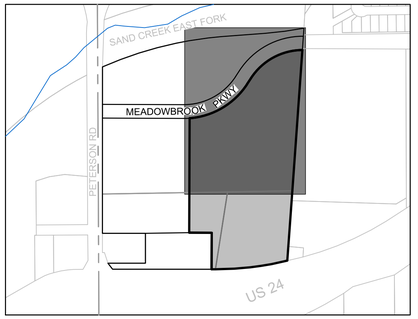
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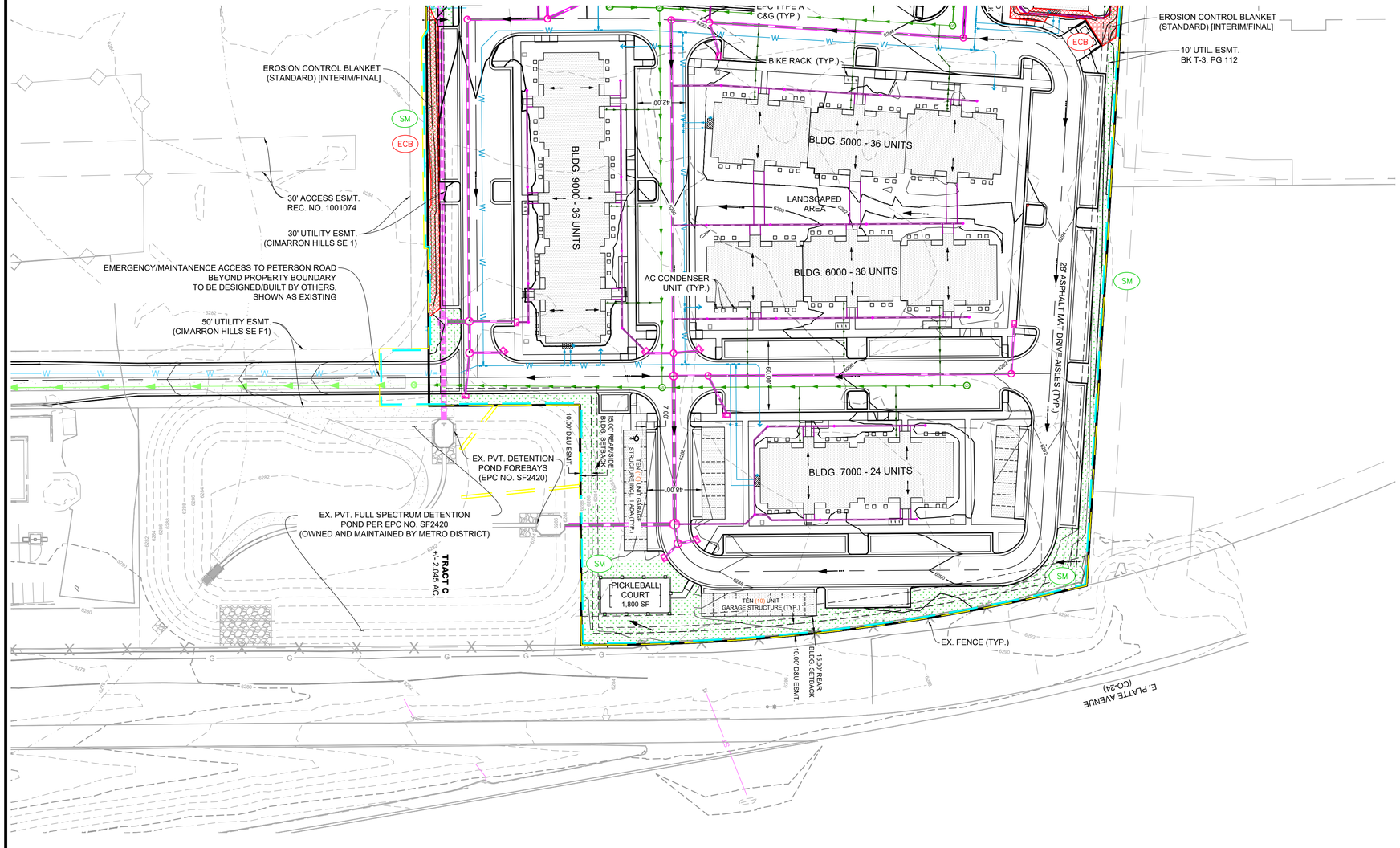
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NORTH
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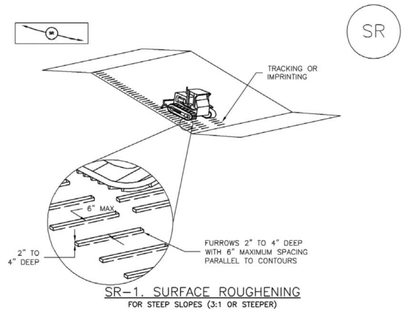
STREET PLAN & PROFILES
FINAL SOUTH

SHEET GEC7 | 7

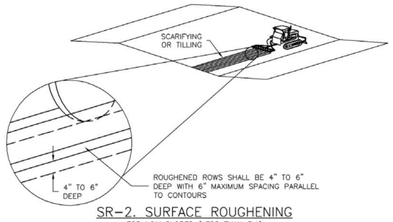
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Surface Roughening (SR) EC-1



SR–1. SURFACE ROUGHENING
FOR STEEP SLOPES (3:1 OR STEEPER)



SR–2. SURFACE ROUGHENING
FOR LOW SLOPES (LESS THAN 3:1)

Mulching (MU) EC-4

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.



Photograph MU-1. An area that was recently seeded, mulched, and crimped.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

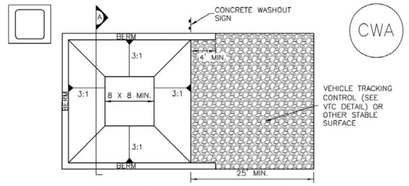
Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

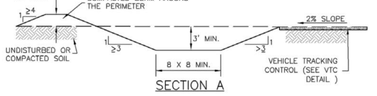
A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

Concrete Washout Area (CWA) MM-1



CONCRETE WASHOUT AREA PLAN



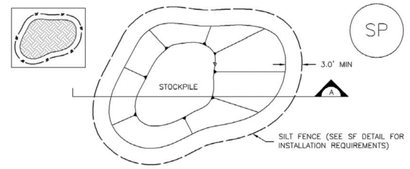
SECTION A

CWA–1. CONCRETE WASHOUT AREA

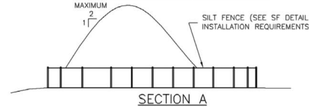
CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

Stockpile Management (SP) MM-2



STOCKPILE PROTECTION PLAN



SECTION A

SP–1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF STOCKPILES.
   –TYPE OF STOCKPILE PROTECTION.
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30–60 DAYS).
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

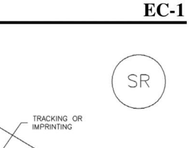
Good Housekeeping Practices (GH) MM-3

Description

Implement construction site good housekeeping practices to prevent pollution associated with solid, liquid and hazardous construction-related materials and wastes. Stormwater Management Plans (SWMPs) should clearly specify BMPs including these good housekeeping practices:

- Provide for waste management.
- Establish proper building material staging areas.
- Designate paint and concrete washout areas.
- Establish proper equipment/vehicle fueling and maintenance practices.
- Control equipment/vehicle washing and allowable non-stormwater discharges.
- Develop a spill prevention and response plan.

Acknowledgement: This Fact Sheet is based directly on EPA guidance provided in *Developing Your Stormwater Pollution Prevent Plan* (EPA 2007).





Photographs GH-1 and GH-2. Proper materials storage and secondary containment for fuel tanks are important good housekeeping practices. Photos courtesy of CDOT and City of Aurora.

Appropriate Uses

Good housekeeping practices are necessary at all construction sites.

Design and Installation

The following principles and actions should be addressed in SWMPs:

- **Provide for Waste Management.** Implement management procedures and practices to prevent or reduce the exposure and transport of pollutants in stormwater from solid, liquid and sanitary wastes that will be generated at the site. Practices such as trash disposal, recycling, proper material handling, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. Implement a comprehensive set of waste-management practices for hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and other materials. Practices should include storage, handling, inventory, and cleanup procedures, in case of spills. Specific practices that should be considered include:

Solid or Construction Waste

- Designate trash and bulk waste-collection areas on-site.

Good Housekeeping	
Functions	
Erosion Control	No
Sediment Control	No
Site/Material Management	Yes

MM-3 Good Housekeeping Practices (GH)

- Recycle materials whenever possible (e.g., paper, wood, concrete, oil).
- Segregate and provide proper disposal options for hazardous material wastes.
- Clean up litter and debris from the construction site daily.
- Locate waste-collection areas away from streets, gutters, watercourses, and storm drains. Waste-collection areas (dumpsters, and such) are often best located near construction site entrances to minimize traffic on disturbed soils. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.
- Empty waste containers before they are full and overflowing.

Sanitary and Septic Waste

- Provide convenient, well-maintained, and properly located toilet facilities on-site.
- Locate toilet facilities away from storm drain inlets and waterways to prevent accidental spills and contamination of stormwater.
- Maintain clean restroom facilities and empty portable toilets regularly.
- Where possible, provide secondary containment pans under portable toilets.
- Provide tie-downs or stake-downs for portable toilets.
- Educate employees, subcontractors, and suppliers on locations of facilities.
- Treat or dispose of sanitary and septic waste in accordance with state or local regulations. Do not discharge or bury wastewater at the construction site.
- Inspect facilities for leaks. If found, repair or replace immediately.
- Special care is necessary during maintenance (pump out) to ensure that waste and/or biocide are not spilled on the ground.

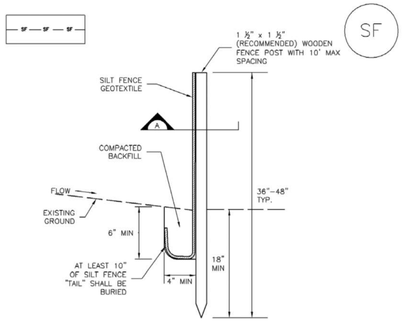
Hazardous Materials and Wastes

- Develop and implement employee and subcontractor education, as needed, on hazardous and toxic waste handling, storage, disposal, and cleanup.
- Designate hazardous waste-collection areas on-site.
- Place all hazardous and toxic material wastes in secondary containment.



Photograph GH-3. Locate portable toilet facilities on level surfaces away from waterways and storm drains. Photo courtesy of WWE.

Silt Fence (SF) SC-1

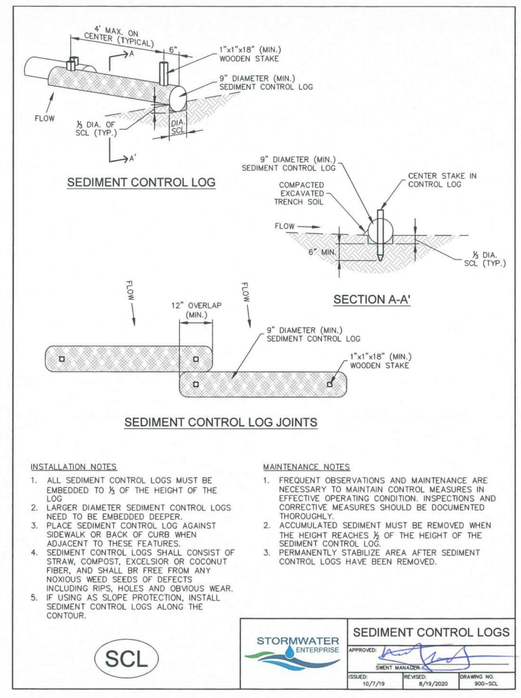


SILT FENCE



SECTION A

SF–1. SILT FENCE



SEDIMENT CONTROL LOG

SECTION A-A'

SEDIMENT CONTROL LOG JOINTS

INSTALLATION NOTES

1. ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO ⅓ OF THE HEIGHT OF THE LOG.
2. LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
3. PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.
4. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BR FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
5. IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
3. PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

SCL

STORMWATER ENTERPRISE

SEDIMENT CONTROL LOGS

APPROVED:
ENGINEER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900–SCL

HR GREEN Xrefs: xg1–1–dn01

DRAWN BY: JTW JOB DATE: 3/13/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\GEC\GEC-Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HILLPOINTE PETERSON
HILLPOINTE, LLC
EL PASO COUNTY, COLORADO

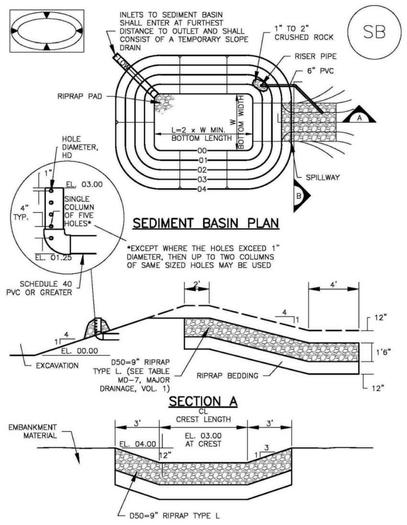
GRADING & EROSION CONTROL PLAN
GEC DETAILS

SHEET ECDT1

8

DOMBROWSKI, COLIN, 4/28/2026 10:15 AM

Sediment Basin (SB) SC-7

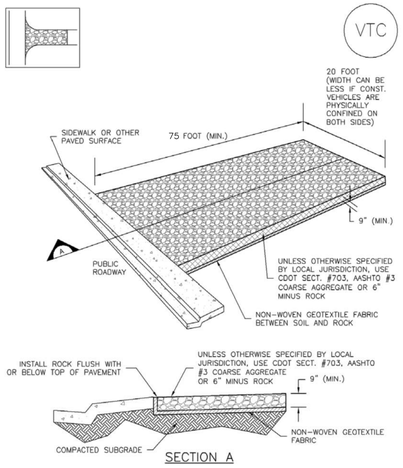


SB

SEDIMENT BASIN PLAN

SECTION A

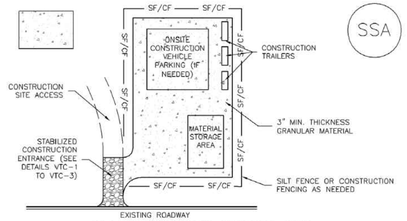
Vehicle Tracking Control (VTC) SM-4



SECTION A

VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

Stabilized Staging Area (SSA) SM-6



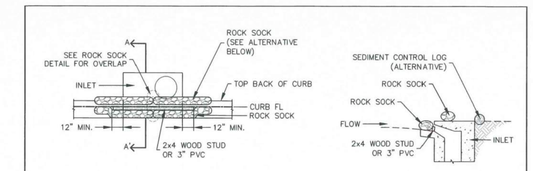
SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

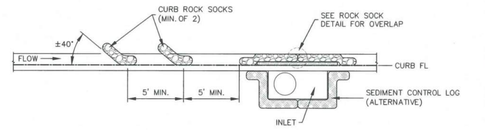
1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.



CURB INLET PROTECTION PLAN SECTION A-A'



CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
3. ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
4. AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADIENT INLETS.
5. ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

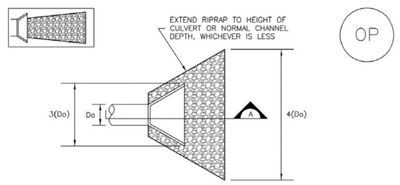
MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

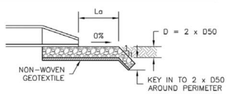
IP-1

STORMWATER ENTERPRISE — ON-GRADE INLET PROTECTION
APPROVED: CMENT MANAGER
ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-1

EC-8 Temporary Outlet Protection (TOP)



TEMPORARY OUTLET PROTECTION PLAN



SECTION A

TABLE OP-1. TEMPORARY OUTLET PROTECTION SIZING TABLE

PIPE DIAMETER, Do (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, La (FT)	RIPRAP D50 DIAMETER MIN (INCHES)
8	2.5	5	4
	5	10	6
12	5	10	4
	10	13	6
18	10	10	6
	20	16	9
	30	23	12
	40	26	16
24	30	16	9
	40	26	9
	50	26	12
	60	30	16

OP-1. TEMPORARY OUTLET PROTECTION

Temporary Outlet Protection (TOP) EC-8

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

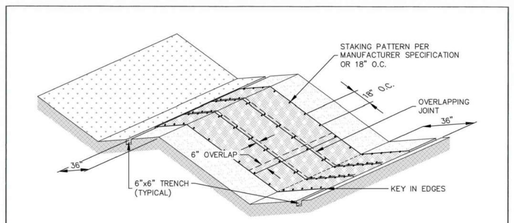
1. SEE PLAN VIEW FOR
   –LOCATION OF OUTLET PROTECTION.
   –DIMENSIONS OF OUTLET PROTECTION.
2. DETAIL IS INTENDED FOR PIPES WITH SLOPE ≤ 10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
3. TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND MAINTENANCE NOTES

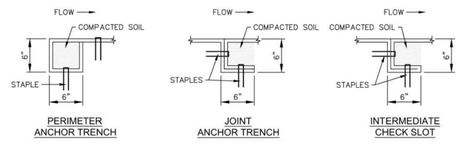
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

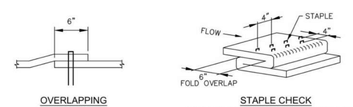
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)



EROSION CONTROL BLANKET





ECB

STORMWATER ENTERPRISE — EROSION CONTROL BLANKET
APPROVED: CMENT MANAGER
ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-ECB-1

INSTALLATION NOTES

1. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY ME USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
2. IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
5. INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
6. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
9. STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
10. COMPACT ALL TRENCHES.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	–	100%	–	DOUBLE/ NATURAL
STRAW–COCONUT	30% MIN.	70% MAX.	–	DOUBLE/ NATURAL
COCONUT	100%	–	–	DOUBLE/ NATURAL
EXCELSIOR	–	–	100%	DOUBLE/ NATURAL

ECB

STORMWATER ENTERPRISE — EROSION CONTROL BLANKET
APPROVED: CMENT MANAGER
ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-ECB-2

HR GREEN Xrefs: xg1-1-dh01

DRAWN BY: JTW JOB DATE: 3/13/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\GEC\GEC-Details

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IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HILLPOINTE PETERSON
HILLPOINTE, LLC
EL PASO COUNTY, COLORADO

GRADING & EROSION CONTROL PLAN
GEC DETAILS

SHEET ECDT2

9

DOMBROWSKI, COLIN, 4/28/2026 10:15 AM

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

1. IN AREAS TO BE SEEDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
2. AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
3. THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
4. TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE.
   - SEED DEPTH MUST BE ½ TO ½ INCHES WHEN DRILL-SEEDING IS USED.
3. BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
   - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDING.
   - BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

MULCHING

1. MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
2. MULCHING REQUIREMENTS INCLUDE:
   - HAY OR STRAW MULCH
     - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
     - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
     - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
   - HYDRAULIC MULCHING
     - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
     - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
     - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
   - EROSION CONTROL BLANKET
     - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SM

STORMWATER ENTERPRISE

SEEDING & MULCHING

APPROVED: _____ DIRECT MANAGER

ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 100-SM

El Paso County Conservation District

EPCCD Native Shotgun Mix

Seed (lb)		Land	
Broadcast	**Drilled**	**Acres**	**Feet^2**
1.00	0.50	0.10	4,356
2.00	1.00	0.20	8,712
2.50	1.25	0.25	10,890
5.00	2.50	0.50	21,780
7.50	3.75	0.75	32,670
10.00	5.00	1.00	43,560
20.00	10.00	2.00	87,120
50.00	25.00	5.00	217,800

SCHEDULE & PREP

This shotgun native mix is best planted from November 1 to May 15 into soil that isn't frozen or muddy.
During this time, soil moisture and temperatures give these seeds the best opportunity to vernalize and store resources but not germinate until early spring (cool season seeds) or early summer (warm season seeds). The seedbed is firm and free of competing vegetation. Seeds are placed at the proper depth; a loose, fluffy bed will place seeds too deep for germination.

PLANTING

Small areas can be seeded by broadcasting this mix. Roughen up the soil with a rake and spread the seed across the area; lightly rake back over but don't incorporate the seed into the soil and risk a seed depth greater than ¼" to ½". Large areas should be planted with a grass seed drill; because the drill plants more accurately at a precise depth, you'll need half the amount of broadcast seed.

ESTABLISHING

During drought or low-water conditions, water new seed during the first season but especially the first three weeks; outside of rain or snow, water early AM or late PM every-other-day so that the seed remains moist.
Where seed was broadcast, care should be taken to not displace seed from strong water or grade runoff.

- These grasses should be allowed to grow. Aggressive mowing induces dormancy, allows weed growth, promotes evaporation and increased temperature, limits ground cover and shade, reduces drought resistance, and impairs favorable conditions within the soil
- Where required, mowing should be limited to one time, in early spring, and no less than 4" height.
- Healthy native grasses generally crowd out weeds; however, if they happen to grow, weeds should be removed quickly.
- You can apply fertilizer the day of seed planting and each 3-4 weeks but it isn't required for a great, native grass lawn and fertilizer may also feed weeds.

HR GREEN Xrefs: xg1-1-dh01

DRAWN BY: JTW | JOB DATE: 3/13/2026
APPROVED: RDL | JOB NUMBER: 2502477
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\CDs\GEC\GEC-Details

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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HILLPOINTE PETERSON
HILLPOINTE, LLC
EL PASO COUNTY, COLORADO

GRADING & EROSION CONTROL PLAN
GEC DETAILS

SHEET ECDT3

LIETZKE, KRISTEN, 4/22/2026 10:50 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

GENERAL LANDSCAPE PLAN NOTES:

*A FINAL LANDSCAPE AND IRRIGATION PLAN SHALL BE SUBMITTED AND REVIEWED CONCURRENT WITH BUILDING PERMIT SUBMITTAL AND APPROVED PRIOR TO ISSUANCE OF A BUILDING PERMIT.

1. LANDSCAPE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND SERVICES NECESSARY TO FURNISH AND INSTALL LANDSCAPE ELEMENTS AND PLANTINGS AS SPECIFIED HEREIN AND AS SHOWN ON THESE PLANS.
2. NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT LANDSCAPE ARCHITECT'S APPROVAL. ALTERNATE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REVISE PLANT LIST AS DEEMED NECESSARY.
3. ALL PLANT LOCATIONS ARE APPROXIMATE, ADJUST AS NECESSARY TO AVOID CONFLICTS.
4. QUANTITIES OF MATERIALS SHOWN ON THE PLANTING PLAN TAKE PRECEDENCE OVER QUANTITIES SHOWN ON THE PLANT MATERIAL SCHEDULE. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES ON THE PLANTING PLAN.
5. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE WORK. UTILITIES HAVE BEEN SHOWN ON PLAN FOR ROUGH LOCATION OF SERVICES. LOCATE EXACT UTILITY LOCATIONS BY CONTACTING "CALL BEFORE YOU DIG" AT (800) 922-1987 OR 811. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE HE MAY CAUSE TO UTILITIES.
6. REMOVE ALL RUBBISH, EQUIPMENT, AND MATERIAL AND LEAVE THE AREA IN A NEAT, CLEAN CONDITION EACH DAY. MAINTAIN PAVED AREAS UTILIZED FOR HAULING EQUIPMENT AND MATERIALS BY OTHER TRADES IN A CLEAN AND UNOBSTRUCTED CONDITION AT ALL TIMES.
7. STORAGE OF ANY MATERIALS, BUILDINGS, VEHICLES OR EQUIPMENT, FENCING AND WARNING SIGNS SHALL BE MAINTAINED THROUGHOUT THE SITE WORK AND CONSTRUCTION PERIODS BY THE CONTRACTOR.
8. ALL INTERNAL LANDSCAPE AND OPEN SPACE AREAS SHALL BE OWNED AND MAINTAINED BY A HOME OWNERS ASSOCIATION (TO BE NAMED) AFTER INITIAL INSTALLATION BY THE OWNER. THE HOA (TO BE NAMED) WILL BE SET UP BY THE EVENTUAL MANAGEMENT COMPANY.
9. STREET TREES, STREETSCAPE IMPROVEMENTS, AND VEGETATION WITHIN THE CITY ROW SHALL BE MAINTAINED BY THE HOA (TO BE NAMED) OR CURRENT PROPERTY OWNER.
10. ACCESSIBLE ROUTES, INCLUDING RAMPS AND SIDEWALKS, WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PER THE CITY'S STANDARD DRAWINGS AND SPECIFICATIONS. CITY'S INSPECTOR WILL HAVE THE FINAL AUTHORITY ON ACCEPTING THE PUBLIC IMPROVEMENTS.
11. LANDSCAPE IMPROVEMENTS AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF HOA (TO BE NAMED) OR CURRENT OWNER.

IRRIGATION:

1. AN IRRIGATION PLAN SHALL BE SUBMITTED AND REVIEWED CONCURRENT WITH BUILDING PERMIT SUBMITTAL AND APPROVED PRIOR TO ISSUANCE OF A BUILDING PERMIT.
   1.1. ALL SHRUBS AND TREES SHALL BE DRIP IRRIGATED. ALL TREES LOCATED WITHIN SOD TURF AREAS SHALL BE WATERED BY ADJACENT SOD IRRIGATION SYSTEM.
   1.2. ALL NATIVE LOW GROW SEEDING SHALL BE TEMPORARILY IRRIGATED UNTIL ESTABLISHMENT. A PERMANENT IRRIGATION SYSTEM SHALL BE REQUIRED FOR DETENTION SEEDING.
11. THE CONTRACTOR SHALL PROVIDE WATER, WATERING DEVICES, AND LABOR NEEDED TO IRRIGATE PLANT MATERIALS UNTIL AUTOMATIC IRRIGATION SYSTEMS ARE OPERATIONAL AND ACCEPTED. THE CONTRACTOR SHALL SUPPLY ENOUGH WATER TO MAINTAIN THE PLANT'S HEALTHY CONDITION BASED ON SEASONAL CONSIDERATIONS.

SHRUB/TREE PLANTING NOTES:

1. OWNER AND OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT AT ANY TIME OR PLACE PRIOR TO FINAL ACCEPTANCE OF WORK, ANY AND ALL PLANTS WHICH, IN THEIR OPINION, FAIL TO MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
2. ALL TREE AND SHRUB LOCATIONS ARE APPROXIMATE; ADJUST AS NECESSARY TO AVOID CONFLICTS. PLANTING LOCATIONS OF SHRUBS, GRASSES AND PERENNIALS AS SPECIFIED. OBTAIN OWNERS REPRESENTATIVE'S APPROVAL OF LOCATIONS PRIOR TO PLANTING TREES AND SHRUBS.
3. ALL PLANT MATERIAL SHALL BE WELL-FORMED AND DEVELOPED IN GOOD CONDITION, HEALTHY AND DISEASE FREE, AND BE TYPICAL OF THE SPECIES.
4. PLANTS SHALL COMPLY IN ALL APPLICABLE RESPECTS WITH ACCEPTABLE STANDARDS SET FORTH IN THE COLORADO NURSERY ACT OF 1965 - TITLE 35, ARTICLE 25, CRS 1974 (SEE LANDSCAPE THE NURSERY ACT).
5. AT THE COMPLETION OF PLANTING OPERATIONS ALL PLANTS SHALL BE INSPECTED BY THE OWNER AND OWNERS'S REPRESENTATIVE. CONTRACTOR SHALL REPLACE IMMEDIATELY ANY PLANTS NOT IN HEALTHY AND VIGOROUS CONDITION AT THAT TIME AT NO EXPENSE TO THE OWNER. ANY PLANT NOT IN HEALTHY CONDITION DURING THE WARRANTY PERIOD SHALL BE REPLACED AS PER THE ORIGINAL SPECIFICATIONS, AT NO CHARGE TO THE OWNER.
6. PLANTS ARE TO BE SELECTED AND SIZED AS SHOWN ON THE PLANT SCHEDULE.
7. PLANTS BED RECEIVING MULCH ARE TO BE FREE OF WEEDS AND GRASS. TREAT BEDS WITH A PRE-EMERGENT HERBICIDE PRIOR TO PLANTING AND MULCH PLACEMENT. APPLY IN ACCORDANCE WITH STANDARD TRADE PRACTICE. DO NOT APPLY HERBICIDE IN PERENNIAL BEDS.
8. POROUS WEED BARRIER FABRIC, AS NOTED IN THE SPECIFICATIONS, SHALL BE INSTALLED WHERE ROCK AREAS ARE PRESENT.
9. USE TRIANGULAR SPACING IN ALL GROUNDCOVER AND PERENNIAL BEDS.
10. ALL WORK ON TREES TO REMAIN, INCLUDING CROWN AND ROOT PRUNNING SHALL BE PERFORMED BY A TREE SERVICE LICENSED BY THE CITY FORESTER.

SODDING & SEEDING:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EXISTING EROSION CONTROL MEASURES DURING THE DURATION OF WORK ON-SITE.
2. ALL PROPOSED TURF AND PLANTING AREAS ARE TO BE ROTO-TILLED TO A DEPTH OF 8". FINE GRADE, AND REMOVE ALL CONSTRUCTION DEBRIS AND ROCKS OVER 1" IN DIAMETER FROM THE SITE.
3. AFTER TILLING APPLY SOIL AMENDMENTS & FERTILIZERS TO ALL TURF AND PLANTING AREAS. GRADE SHALL BE ADJUSTED FOR SOD THICKNESS. ALL FINISH GRADING SHALL BE PERFORMED BY LANDSCAPE CONTRACTOR.
4. FINE GRADE SOD AREAS TO ELIMINATE IRREGULARITIES ON THE SURFACE. ROLL OR PERFORM ADDITIONAL FINE GRADING.
5. ALL AREAS TO BE SEEDED SHALL BE TILLED AS SPECIFIED AND THEN HARROWED, RAKED OR ROLLED TO PRODUCE A FIRM SEED BED FOR PLANTING. IMPORTED TOPSOIL MAY BE REQUIRED TO PROVIDE AN ACCEPTABLE PLANTING MEDIUM. LARGE ROCKS (1" DIAMETER) AND DEBRIS THAT MAY IMPEDE SEEDING SHALL BE CLEARED FROM THE SITE. ANY REQUIRED EROSION CONTROL FEATURES (E.G., WATER BARS, BERMS, BASINS, TURNOUTS) SHALL BE CONSTRUCTED PRIOR TO SEEDING. SITES THAT ARE NOT ADEQUATELY PREPARED PRIOR TO SEEDING (E.G., COMPACTED SOIL, INSUFFICIENT TOPSOIL, ROCKY, ERODED SURFACE, ETC.) SHALL BE REJECTED.
6. ALL SPECIFIED SEED MIXES SHALL CONSIST OF CERTIFIED SEE VARIETIES THAT ARE FREE OF NOXIOUS WEEDS AND HAVE BEEN TESTED FOR PURITY AND GERMINATION WITHIN SIX MONTHS OF THE PLANTING DATE. CERTIFICATION LABELS WHICH INDICATE THE SPECIES, PURITY, GERMINATION, WEED CONTENT, ORIGIN, AND TEST DATE SHALL BE SUBMITTED FOR ALL SEED MATERIALS.
7. SEEDING SHALL OCCUR DEPENDING ON THE PROJECT SCHEDULE, IT IS PREFERABLE THAT SEEDING OCCUR DURING THE FALL (SEPTEMBER-NOVEMBER) OR SPRING (MARCH-MAY) TO MAXIMIZE PLANTING SUCCESS. IF THE PROJECT SCHEDULED DOES NOT COINCIDE WITH THE PREFERRED SEEDING PERIODS, OR THERE ARE UNSUITABLE SITE CONDITIONS (I.E. FROZEN GROUND), THEN SOIL STABILIZATION AND/OR STORM WATER BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED TO STABILIZE THE AREA UNTIL THE NEXT APPROPRIATE SEEING DATE.
8. ANY SEEDING CONDUCTED OUTSIDE THE PREFERRED MONTHS SHALL BE APPROVED BY THE OWNER.

GENERAL NOTES

1. BASE MAP INFORMATION IS ACCURATE AS OF THE DATE PRINTED ON THIS PACKAGE.
2. THE LANDSCAPE PLANS CONTAINED HEREIN ILLUSTRATE APPROXIMATE LOCATIONS OF ALL SITE CONDITIONS. REFER TO SURVEY, ARCHITECTURAL, CIVIL ENGINEERING, STRUCTURAL, ELECTRICAL, IRRIGATION AND ALL OTHER DRAWINGS, IF AVAILABLE, FOR ADDITIONAL DETAILED INFORMATION.
3. THE CONTRACTOR SHALL APPLY FOR AND PROCURE ALL REQUIRED PERMITS PRIOR TO COMMENCING WORK.
4. THE CONTRACTOR SHALL COMPLY WITH ALL CODES APPLICABLE TO THIS WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AND OTHER CONTRACTORS OF RELATED TRADES, AS REQUIRED, TO ACCOMPLISH THE PLANTING AND RELATED OPERATIONS.
6. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL PLANT MATERIAL WITH THE INSTALLATION OF OTHER IMPROVEMENTS SUCH AS HARDSCAPE ELEMENTS AND RELATED STRUCTURES. ANY DAMAGE TO EXISTING IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED BY OPERATIONS OF OR RELATED TO THE CONTRACTOR'S WORK.
8. LANDSCAPE EDGING SHALL BE REQUIRED BETWEEN WHERE ALL GROUND COVER TYPES CHANGE TO A DIFFERENT GROUND COVER. SEE SPECIFICATIONS DETAIL.
9. ALL AREAS DESIGNED TO RECEIVE SOLID SOD SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO GRASSING OPERATIONS. FINISH GRADE AT TURF AREAS SHALL BE 3/4"-1" BELOW TOP OF ADJACENT PAVEMENT OR CURBS.
10. CONTRACTOR SHALL FIELD ADJUST PLANT LOCATIONS TO ACCOMMODATE ALL LIGHTING AND ENSURE PLANTS WILL NOT INTERFERE WITH LIGHTING.
11. FERTILIZING, AS SPECIFIED, STAKING, WATERING AND ONE (1) YEAR PLANT WARRANTY FOR INSTALLED PLANT MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THE PLANT ITEMS.
12. WARRANTY: ONE (1) YEAR REPLACEMENT WARRANTY FOR ALL PLANT MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THIS PROJECT. WARRANTY SHALL COVER PLANTS WHICH HAVE DIED OR PARTIALLY DIED (THEREBY RUINING THEIR NATURAL SHAPE), BUT SHALL NOT INCLUDE DAMAGE BY VANDALISM, BROWSING, HAIL, ABNORMAL FREEZES, DROUGHT OR NEGLIGENCE BY THE OWNER. THE WARRANTY IS INTENDED TO COVER CONTRACTOR NEGLIGENCE, INFESTATIONS, DISEASE AND DAMAGE OR SHOCK TO PLANTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND WATERING THE PLANT MATERIAL AS NECESSARY, TO ENSURE GROWTH AND ESTABLISHMENT DURING THE 1-YEAR WARRANTY PERIOD. ANY PLANTS THAT ARE NOT IN A LIVE, HEALTHY, GROWING CONDITION AT THE END OF THE 1-YEAR WARRANTY PERIOD SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. PLANTS REPLACED UNDER WARRANTY WILL BE WARRANTED FOR ONE (1) YEAR FOLLOWING REPLACEMENT.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	PLANTING SIZE	CONTAINER
DECIDUOUS TREES					
	AF	12	ACER FREEMANII FREEMAN MAPLE	2" CAL.	B&B
	CS	11	CATALPA SPECIOSA WESTERN CATALPA	2" CAL.	B&B
	CO	11	CELTIS OCCIDENTALIS COMMON HACKBERRY	2" CAL.	B&B
	GT	19	GLEDITSIA TRIACANTHOS HONEY LOCUST	2" CAL.	B&B
	QH	7	QUERCUS MUEHLENBERGII CHINKAPIN OAK	2" CAL.	B&B
	TC	15	TILIA CORDATA LITTLELEAF LINDEN	2" CAL.	B&B
EVERGREEN TREES					
	JS	8	JUNIPERUS SCOPULORUM ROCKY MOUNTAIN JUNIPER	6` HT.	B&B
	PP	8	PICEA PUNGENS COLORADO SPRUCE	6` HT.	B&B
	PE	2	PINUS EDULIS PINYON PINE	6` HT.	B&B
ORNAMENTAL TREES					
	AT	42	ACER TATARICUM TATARIAN MAPLE	1.5" CAL.	B&B
	AC	12	AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY	1.5" CAL.	B&B
	CI	19	CRATAEGUS CRUS-GALLI INERMIS THORNLESS COCKSPUR HAWTHORN	1.5" CAL.	B&B
	MR	27	MALUS X 'SPRING SNOW' CRABAPPLE	1.5" CAL.	B&B
	SI	19	SYRINGA RETICULATA 'IVORY SILK' JAPANESE TREE LILAC	1.5" CAL.	B&B
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER
DECIDUOUS SHRUBS					
	BR	82	BERBERIS THUNBERGII 'ROSE GLOW' ROSE GLOW JAPANESE BARBERRY	#5	
	CB	102	CARYOPTERIS X CLANDONENSIS BLUE MIST SPIREA	#5	
	NB	42	PHYSOCARPUS OPULIFOLIUS NINEBARK	#5	
	QG	56	QUERCUS GAMBELII GAMBEL OAK	#5	
	RG	62	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	#5	
	SK	97	SYRINGA PUBESCENS PATULA 'MISS KIM' MISS KIM KOREAN LILAC	#5	
EVERGREEN SHRUBS					
	JC	40	JUNIPERUS CHINENSIS 'SPARTAN' SPARTAN JUNIPER	#5	
	JB	36	JUNIPERUS HORIZONTALIS 'BLUE CHIP' BLUE CHIP CREEPING JUNIPER	#5	
	BS	118	PICEA ABIES 'NIDIFORMIS' BIRD'S NEST NORWAY SPRUCE	#5	
	HC	83	PINUS SYLVESTRIS 'HILLSIDE CREEPER' HILLSIDE CREEPER SCOTCH PINE	#5	

LANDSCAPE REQUIREMENTS

INTERNAL LANDSCAPING

TOTAL SITE AREA	15% REQUIRED LANDSCAPE AREA	LANDSCAPE ORDINANCE	NO. OF TREES REQUIRED/PROVIDED	SHRUB SUBSTITUTIONS REQUIRED/PROVIDED	PLANT ABBREVIATION
613,834 SF	92,075 SF	1 TREE PER 500 SF	184 / 123	610/610	IN

LANDSCAPE SETBACKS

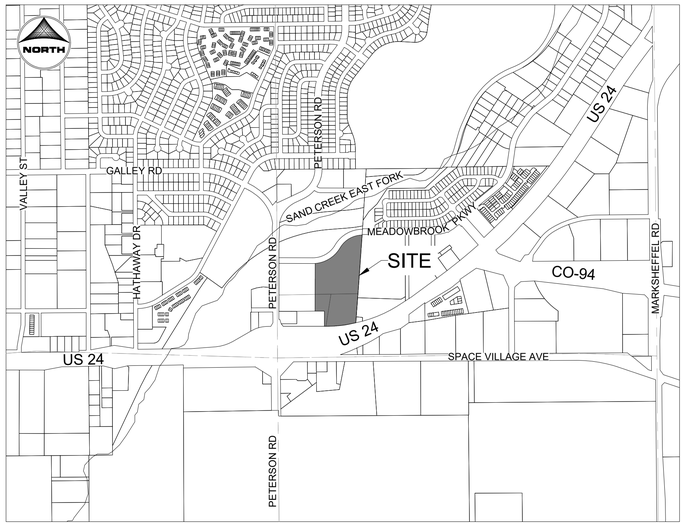
ZONE BOUNDARY	SETBACK WIDTH REQUIRED / PROVIDED	LINEAR FOOTAGE PROVIDED	TREE FEET REQUIRED	NO. OF TREES REQUIRED/PROVIDED	SHRUB SUBSTITUTIONS REQUIRED/PROVIDED	PLANT ABBREVIATION
MEADOWBROOK PARKWAY (MINOR ARTERIAL)	20' / 20'	765 LF	1 TREE PER 25'	31 / 31	0 / 0	MP
E. PLATTE AVE (CO-24) (PRINCIPAL/EXPRESSWAY)	25' / 25'	444 LF	1 TREE PER 20'	23 / 23	0 / 0	PA

MOTOR VEHICLE LOTS

NO. OF SPACES PROVIDED	TREE/VEHICLE SPACES REQUIRED	NO. OF TREES REQUIRED/PROVIDED	PLANT ABBREVIATION
512 SPACES	1 TREE PER 15	35 / 35	MV

Please include breakout for ground coverage calculations
(2)Required Ground Cover. Unless utilizing the principles of xeriscaping, required landscape areas shall include a minimum of 30% ground cover by living or synthetic grass or other living plant materials at maturity. The remaining 70% of the required landscape area may be covered with bark, wood chips, rock, stone, or other landscape materials. No other areas within required landscape areas shall remain bare. The foliage crown of trees shall not be counted in meeting the ground cover requirement.

GROUND COVERS			
	120,048 SF	3/4" DECORATIVE ROCK	MEDIUM
	2,500 SF	FUNCTIONAL TURF SOD (DOG PARKS AND ACTIVE OPEN SPACE) TO COMPLY WITH THE NEW STATE BILLS	HIGH
	78,526 SF	NATIVE SEEDING 27% WESTERN WHEATGRASSS, 18% BLUE GRAMA, 15% BUFFALO GRASS, 13% SIDEOATS GRAMA, 12% SHEEP FESCUE, 10% GREEN NEEDLEGRASS, AND 5% SAND DROPSEED	LOW



VICINITY MAP
SCALE: 1" = 1000'

SHEET INDEX:

SHEET LA-1: LANDSCAPE NOTES & SCHEDULE
SHEET LA-2: LANDSCAPE PLAN
SHEET LA-3: LANDSCAPE DETAILS

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PCD FILE NO.: _____

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APPROVED: BKP JOB NUMBER: ----
CAD DATE: 4/22/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Landscape Plan

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
LANDSCAPE NOTES & SCHEDULE

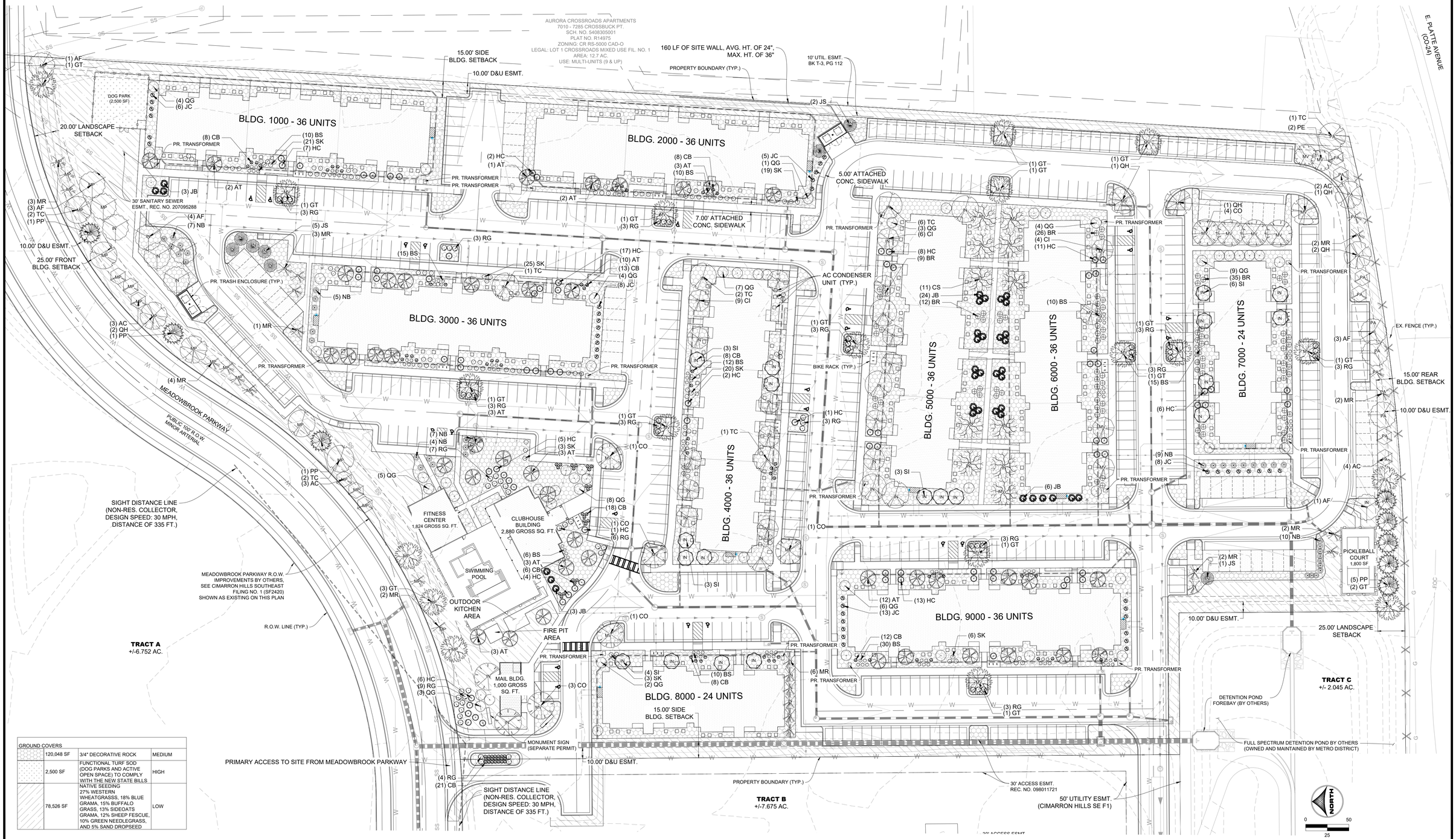
SHEET LA 1

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LIETZKE, KRISTEN, 4/22/2026 10:50 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



GROUND COVERS			
	120,048 SF	3/4" DECORATIVE ROCK	MEDIUM
	2,500 SF	FUNCTIONAL TURF SOD (DOG PARKS AND ACTIVE OPEN SPACE) TO COMPLY WITH THE NEW STATE BILLS	HIGH
	78,526 SF	NATIVE SEEDING 27% WESTERN WHEATGRASS, 18% BLUE GRAMA, 15% BUFFALO GRASS, 13% SIDEOATS GRAMA, 12% SHEEP FESCUE, 10% GREEN NEEDLEGRASS, AND 5% SAND DROPSEED	LOW

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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
LANDSCAPE PLAN

SHEET LA 2

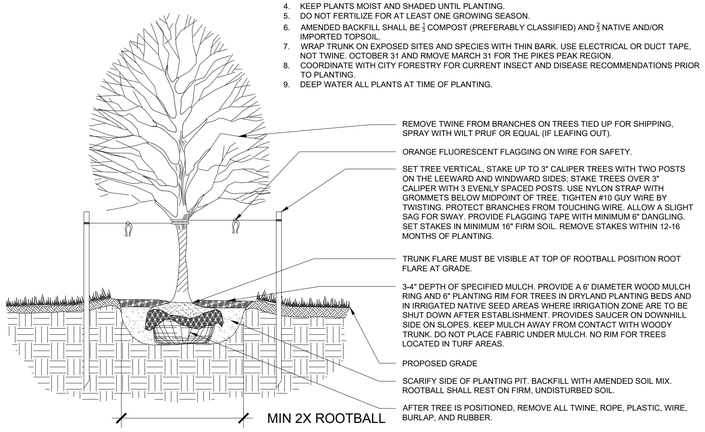
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LIETZKE, KRISTEN, 4/22/2026, 10:50 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

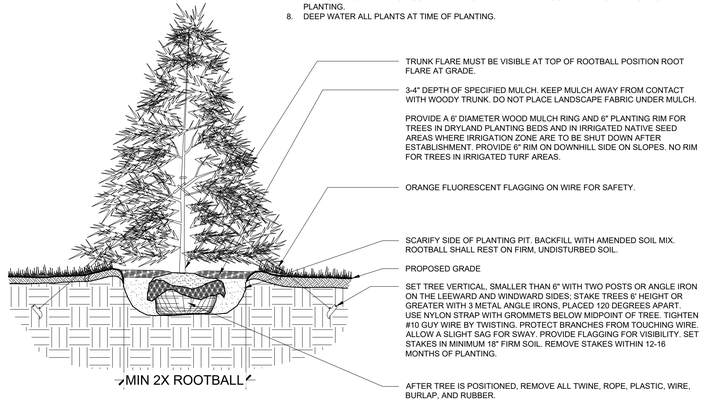
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NOTES:
1. MARK THE NORTH SIDE OF TREE IN NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
2. AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES, CROSS OVER BRANCHES, AND WEEK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
3. STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
6. AMENDED BACKFILL SHALL BE ⅓ COMPOST (PREFERABLY CLASSIFIED) AND ⅔ NATIVE AND/OR IMPORTED TOPSOIL.
7. WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE. OCTOBER 31 AND RMOVE MARCH 31 FOR THE PIKES PEAK REGION.
8. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
9. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



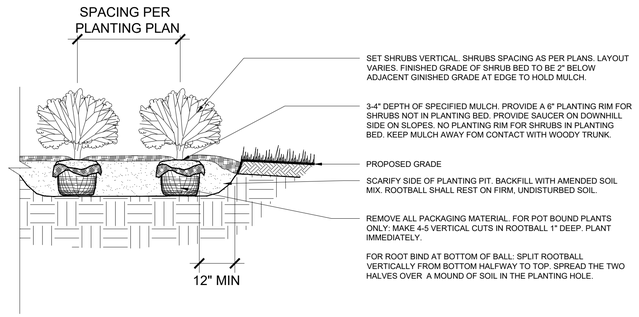
1 TYP. DECIDUOUS TREE PLANTING DETAIL
SCALE: NTS

NOTES:
1. DO NOT REMOVE OR CUT LEADER.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. AMENDED BACKFILL SHALL BE ⅓ COMPOST (PREFERABLY CLASSIFIED) AND ⅔ NATIVE AND/OR IMPORTED TOPSOIL.
6. MARK THE NORTH SIDE OF TREE IN NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
8. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



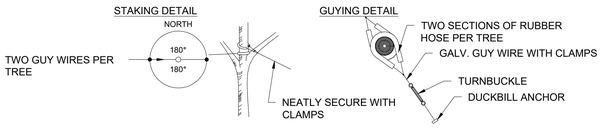
2 TYP. EVERGREEN TREE PLANTING DETAIL
SCALE: NTS

NOTES:
1. PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
2. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
3. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
4. AMENDED BACKFILL SHALL BE ⅓ COMPOST (PREFERABLY CLASSIFIED) AND ⅔ NATIVE AND/OR IMPORTED TOPSOIL.
5. ALL SHRUBS IN ROCK AREAS TO RECIEVE SHREDDED MULCH RINGS.
6. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



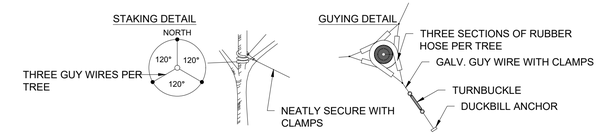
3 TYP. SHRUB PLANTING DETAIL
SCALE: NTS

GUYING STANDARDS
- TWO (2) MODEL 68 DUCKBILL ANCHORS (HOLDING CAPACITY 1100# PER ANCHOR IN NORMAL SOIL.
- 13' OF ⅛" 7x7 GALVANIZED STEEL CABLE WITH TURNBUCKLE ATTACHED MID-CABLE.
- ½" DIAMETER THIN WALL P.V.C. TUBING (WHITE) 48" MINIMUM LENGTH. ONE (1) REQUIRED/EACH GUY.
- TWO (2) TURNBUCKLES, EYE AND EYE TYPE, ⅜" THREAD DIAMETER WITH 3" TAKE-UP
- FOUR (4) ⅜" CABLE CLAMPS, ZINC PLATED (DR-2 STEEL DRIVE ROD 2' LONG WITH ¼" ROUND DRIVING TIP NEEDED TO INSTALL ANCHORS. ONE ROD, NOT INCLUDED IN KIT, DRIVES HUNDREDS OF ANCHORS)
- TWO (2) RUBBER HOSE TREE COLLARS, 21" LONG, EA.



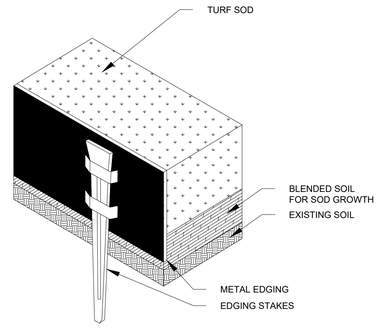
*APPLIES TO SINGLE TRUNK DECIDUOUS TREES 3" CAL. AND LESS & EVERGREEN TREES 8' HT. AND LESS

GUYING STANDARDS
- THREE (3) MODEL 68 DUCKBILL ANCHORS (HOLDING CAPACITY 1100# PER ANCHOR IN NORMAL SOIL.
- 13' OF ⅛" 7x7 GALVANIZED STEEL CABLE WITH TURNBUCKLE ATTACHED MID-CABLE.
- ½" DIAMETER THIN WALL P.V.C. TUBING (WHITE) 48" MINIMUM LENGTH. ONE (1) REQUIRED/EACH GUY.
- THREE (3) TURNBUCKLES, EYE AND EYE TYPE, ⅜" THREAD DIAMETER WITH 3" TAKE-UP
- SIX (6) ⅜" CABLE CLAMPS, ZINC PLATED (DR-2 STEEL DRIVE ROD 2' LONG WITH ¼" ROUND DRIVING TIP NEEDED TO INSTALL ANCHORS. ONE ROD, NOT INCLUDED IN KIT, DRIVES HUNDREDS OF ANCHORS)
- THREE (3) RUBBER HOSE TREE COLLARS, 21" LONG, EA.



*APPLIES TO SINGLE TRUNK DECIDUOUS TREES GREATER THAN 3" CAL. & EVERGREEN TREES GREATER THAN 8' HT.

4 TYP. GUYING DETAIL
SCALE: NTS



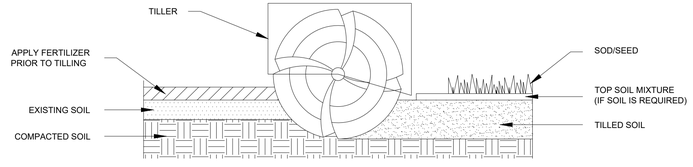
CONFIGURATION AND JOINING



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. METAL EDGING IS TO BE POWDER COATED AND ROLLED TOP.
3. USE BROWN COLOR ONLY.
4. CUT/BEND WHERE NEEDED TO CONFORM TO LANDSCAPE PLAN LAYOUT.

5 TYP. METAL EDING DETAIL
SCALE: NTS

NOTES:
1. TOPSOIL TO CONSIST OF DARK, LIGHT LOAM SOIL FREE OF ALL IMPURITIES SUCH AS ROCKS, ROOTS AND OTHER FOREIGN MATERIALS.
2. APPLY FERTILIZER WITHIN 2-3 DAYS OF PLANTINGS.
3. COMPOST TO CONSIST OF 1-YEAR OLD ORGANIC MATERIAL AND SHOULD NOT INCLUDE CHICKEN MANURE.
4. MATERIALS GREATER THAN 1" DIAMETER OR FROZEN SOIL SHALL BE REMOVED.
5. TILLED SOIL SHALL BE SMOOTHLY RAKED TO A FINISHED GRADE TO PROVIDE POSITIVE DRAINAGE.



6 TYP. SOIL PREPARATION (ALL AREAS)
SCALE: NTS

PCD FILE NO.:

DRAWN BY:	KAL	JOB DATE:	4/21/2026
APPROVED:	BKP	JOB NUMBER:	----
CAD DATE:	4/22/2026		
CAD FILE:	J:\2025\2502477\CAD\Dwgs\C\SDP\Landscape Plan		

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
LANDSCAPE DETAILS

SHEET LA 3

HR GREEN Xrefs: 01-XC-UTIL; 01-XC-ROW; 01-XC-DSGN; 00-XV-UTIL; 00-XV-SURVEY; 00-XV-ROW; 00-XC-UTIL; 00-XC-ROW; 00-XC-DSGN; XL-DSGN; TB_24x36_2502477-SDP; VICINITY-MAP

HRGreen
DEVELOPMENT

1975 Research Parkway | Suite 160
Colorado Springs, CO 80920
Main 719.300.4140 + **Fax** 713.965.0044

HRGREEN.COM

Hillpointe Apartments SDP

CHURCH AT BENT GRASS MEADOWS: FINAL PLAT

LETTER OF INTENT, PPR 26-013

April 20, 2026

OWNER/DEVELOPER:
Hillpointe, LLC.
3773 Cherry Creek Drive North
Denver, CO 80209
MFoster@hillpointe.com

CONSULTANT:
HR Green Development, LLC
1975 Research Parkway, Suite 160
Colorado Springs, CO 80920
Blaine.perkins@hrgreen.com

Please include a section for the Road Impact Fee program. The fee will be assessed under the Multi Family Land use. The fee is $2,585/unit

SITE DETAILS

- TSN: 5408007001, 5408007004, 5408007008
- Address: 485 Meadowbrook Parkway
- Acreage: 14.09 Acres
- Existing Zoning: CR CAD-O
- Proposed Zoning: RM30 CAD-O
- Current Use: Vacant

APPLICATION REQUEST

- HR Green on behalf of Hillpointe, LLC. requests approval of a Site Development Plan (PPR_____) application for 14.09 acres comprising three existing parcels, to be platted at one lot (Lot 1 Cimarron Hills Southeast Mixed Use Filing No. 1) with another application (SF2420).

SF2420 is expired. Update throughout.

Rezone has not yet been officially reviewed. Please revise statement and include reference to rezone Project # P265.

SITE LOCATION

The site is located east of Peterson Road, north of US Highway 24, south of an extension of Meadowbrook Parkway, and west of the Aura Crossroads Apartment complex. The site is to be platted via SF2420 as Lot 1 Cimarron Hills Southeast Mixed Use Filing No. 1 and is the easternmost lot within the final plat. To the east is the Aura Crossroads multifamily development which is Lot 1 Crossroads Mixed Use Filing No. 1, a CR RS-5000 CAD-O zoned lot that is accessed from Meadowbrook Parkway. The surrounding areas of the Site are platted with SF2420 as future development tracts that are zoned CR (Commercial Regional). A Rezone Application for this site, Lot 1, is approved granting a new zoning of RM30 CAD-O to allow the proposed conditions of the multi-family apartment development. Nearby properties and existing developments include commercial parcels such as the Super 8 by Wyndham hotel, Sand Creek Golf Course, Peterson Discount Liquors, and Econo Lodge hotel located to the west of the site including areas on the west side of Peterson Road. Commercial property is located north of the Site and the nearest single-family detached subdivisions are approximately 1,200 feet due north and northeast of the Site.

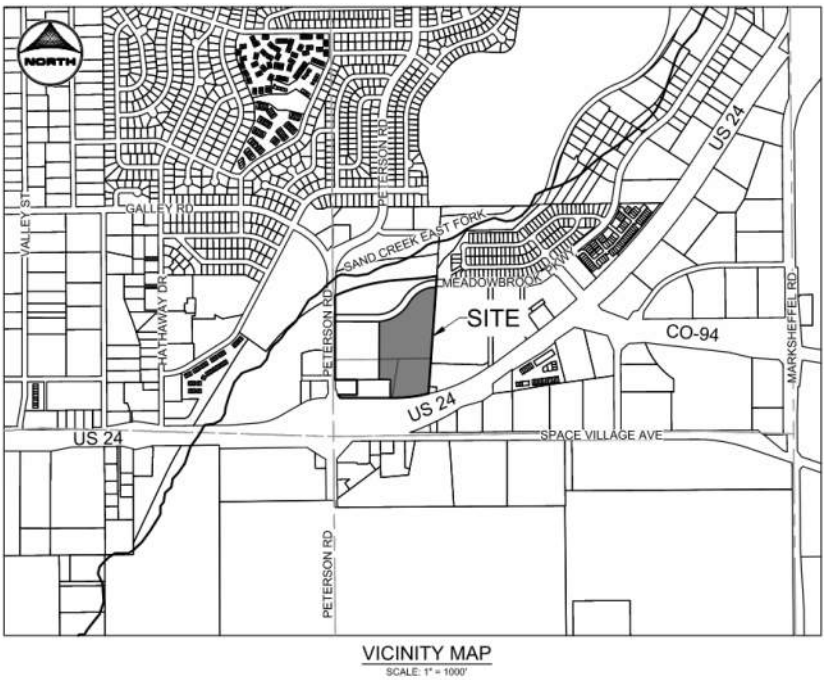


Figure 1: Vicinity Map of the Hillpointe Apartments site located south of Meadowbrook Parkway and east of Peterson Road.

ANAV: Airport Activity Notice and Disclosure or equivalent required, if not already recorded, in order to secure a building permit or development permit.

PROJECT DESCRIPTION & CONTEXT

The proposal is to develop the site for multi-family residential apartments totaling 300 dwelling units. The site consists of nine (9) apartment buildings with 36-unit and 24-unit building floorplates, on-site parking areas, detached garages, an amenities area with a clubhouse, fitness center, and pool, a mail building, an outdoor pickleball court, and a dog park.

Include subzone (ANAV)

Zoning:

The properties are currently undeveloped and zoned, CR (Commercial Regional) CAD-O. The Lot 1 site is to be rezoned to RM-30 CAD-O for the development of the multi-family apartments (application P265). The site is adjacent to mostly CR zoned properties with nearby RS-5000, M, CC, CS, I2- and PUD zoning within the vicinity of the development.

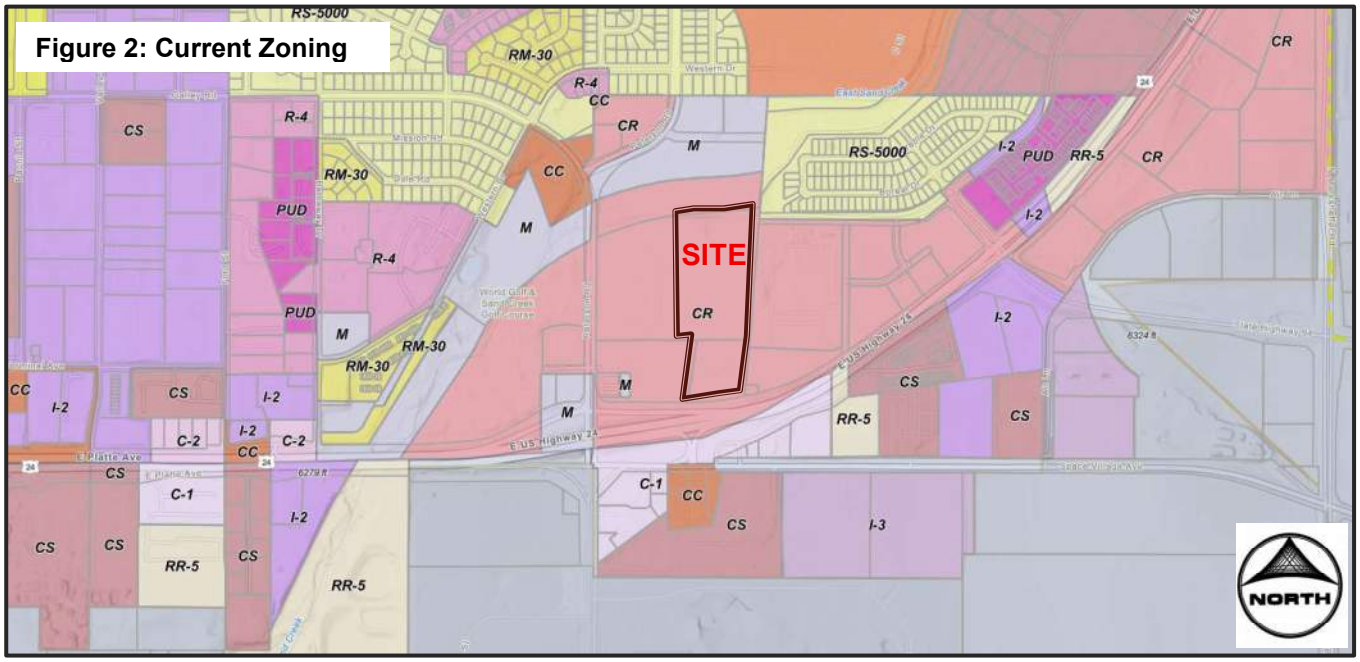


Figure 2: Zoning of Site and adjacent parcels. (Scale: 1"=500')

Access:

The primary access to the development is proposed as a shared drive access from Meadowbrook Parkway located approximately 555 feet (centerline-to-centerline) from Peterson Road. This primary access has a centerline along the lot line of Lot 1 and its adjacent CR zoned future development Tract to the west, as a future primary access to that future development. A secondary access that is considered an emergency access only for emergency vehicles is the existing access at the Super 8 by Wyndham Hotel located west of the Site, aligning with the south property boundary of Lot 1. This is a right-in / right-out secondary access as the Colorado Department of Transportation mandated closing off the open median within Peterson Road that allowed southbound left turns to the Super 8 Hotel site. With the primary access off of Meadowbrook Parkway and the existing secondary, emergency access from Peterson Road by the Hotel site, there is sufficient access for traffic flow and emergency services.

A deviation is required to allow the primary access within 660' of the minor arterial roadway of Peterson Road.

Traffic:

A Traffic Impact Study prepared by SM Rocha is included with the Site Development Plan application (PPR PPR2613 as well as the Rezone Application P265. The Traffic Impact Study analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. The Traffic Impact Study notes roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency. With all conservative assumptions defined in the Traffic Impact Study analysis, the study intersections are projected to operate at future levels of service comparable to Year 2045 background traffic conditions. The study for this development of Lot 1 utilizes the master traffic study conducted by Matrix Design Group for the Final Plat of the subdivision of Cimarron Hills Southeast Mixed Use Filing No. 1, application SF2420.

Operations:

The proposed apartment buildings are a multi-family residential use. The amenities areas have varying hours of operations. The clubhouse is anticipated to be open between the hours of 8 AM to 5 PM on weekdays and weekends. The pool is anticipated to be open between the hours of 9 AM to 4 PM on weekdays and weekends. The fitness center is anticipated to be open and accessible 24-hours by RFID granted to residents only. The mail building is anticipated to be open and accessible 24-hours by RFID granted to residents and USPS only with unlocked operation hours of 6 AM to 6 PM for delivery services.

Parking:

The parking table from the Site Development Plan outlines the requirements and proposed parking on site, they are summarized below. There is sufficient space in the proposed parking areas to provide the parking required for the proposed use as will be outlined in the Site Development Plan.

PARKING SPACE CALCULATIONS						
AREA TYPE	# OF DU'S OR AREA	SEAT:PARKING RATIO	REQUIRED SPACES	ADA STANDARD STALLS REQ'D.	ADA VAN STALLS REQ'D	
RESIDENTIAL, MULTI-FAMILY						
STUDIO OR EFFICIENCY		1.1 SPACES PER DU				
1 BEDROOM		1.5 SPACES PER DU				
2 BEDROOM	300	1.7 SPACES PER DU	510	11	5	
3 BEDROOM		2.0 SPACES PER DU				
GUEST		1 SPACE PER 3 DU				
TOTAL	**300**		510	11	5	
	STD. SURFACE STALLS	ADA SURFACE STALLS	STD. GARAGE STALLS	ADA GARAGE STALLS	TOTAL STALLS	PARKING RATIO
PROPOSED PARKING	430	24	58	2	514	1.71

Proof of utilities /intent to serve required with PPR

Utilities:

The development requires extensions of Cherokee Metropolitan District owned public main as private main and services for sanitary sewer and water. Colorado Springs Utilities primary electric is to be extended into the site for private electric services with transformers to be sited throughout the development as needed. There is no proposed natural gas extension into the site. The Final Plat for the Cimarron Hills Southeast Mixed Use Filing No. 1 (SF2420) subdivision contains the construction drawings for the public main extensions including stubs to the development for extension of private facilities. Coordination efforts are on-going with Colorado Springs Utilities for their Eastern Wastewater Main Extension project in this area and it is coordinated with the final plat application (SF2420) for the sanitary sewer construction within Meadowbrook Parkway. This application is proposing no permanent structures within the existing utility easement at the frontage (Meadowbrook Parkway) area of the site to avoid conflicts with CSU future construction activities.

Wetlands & Floodplain:

There are no wetlands within the project boundaries. The site is located in Zone X (FEMA Floodplain Map No. 08041C0754G dated December 7, 2018), indicating the flood risk of the site is deemed by FEMA to be 'minimal'. There is a Floodway Zone AE located approximately 300 feet north of the site and a 100-year flood zone AE located approximately 250 west of the site with established base flood elevations (BFE's). These flood zones, while in the vicinity of Lot 1, do not directly affect the construction and permitting of the development. Consideration for existing BFE's are made in design.

Wildlife:
No Natural Features Reports or Ecological studies were conducted as a part of SF2420.

Wildfire:
The primary wildland fuel type is grassland. The Colorado State Forest Service has determined a moderate-high wildfire hazard potential and listed a moderate risk, as this area is currently undisturbed grassland. Development of the site will reduce the available wildfire fuels in this area with the clearing and removal of grassland and other existing vegetation throughout the whole site. The site is to be stabilized with rock, lawn/sod, shrubs, and trees strategically placed to meet landscape criteria and minimize fire risk.

Drainage:
A Final Drainage Report, prepared by HR Green Development is submitted with the Site Development Plan (PPR 26_____) application showing conformance with the current EPC standards. Full spectrum detention is provided by the existing private regional extended detention basin dedicated to the subdivision, as designed and approved with the Final Plat (SF2420). Water quality treatment is provided for all applicable areas of the site except for excluded areas which do not exceed 20 percent of the development site or 1 acre per the El Paso County base design standard requirements. All proposed drainage facilities meet or exceed the current EPC standards.

Geologic Hazards:
A Soils and Geology Report is included with the SDP application, prepared by Valleyshore Engineering. Within this report is a detailed analysis showing the current potential geologic hazard constraints and mitigation measures that will be necessary for development.

Mineral Rights Certification:
A mineral rights certification affidavit was submitted with the applications showing that there was not a mineral estate owner on the property.

foot

Landscaping
Landscaping for the site will be shown on the provided Landscape Drawings within the SDP application. A twenty-five landscape setback along Meadowbrook Parkway (north) and US Highway 24 (south). There are ten-foot landscape setbacks along the east and west lot boundaries, adjacent to multi-family development to the east and a future Commercial Regional zoned future development Tract to the west. The required five-percent internal landscaping has been met with appropriate internal trees and shrubs on site. Thirty one motor vehicle trees are required on-site based on the number of parking spaces provided. Any substitutions or alternative landscape design meets EPC Criteria by assigning the proper ratio of shrubs in lieu of trees.

Does this refer to parking lot trees?

Districts Serving the Property:

The following districts will serve the property:

- Colorado Springs School District #11
- Colorado Springs Utilities (Electric)
- Cherokee Metro District – Water and Wastewater
- Cimarron Hills Fire Protection District

PROJECT JUSTIFICATION

1.The subdivision is in conformance with the goals, objectives, and policies of the master plan;

EL PASO COUNTY MASTER PLAN - The proposed multi-family apartment development is in conformance with the assigned placetype of Urban Residential as prescribed by the County, as shown in orange in Figure 3 below. The proposed urban residential development is surrounded by Employment Areas (light blue) and across the highway to the south is Military Installations (dark blue).

Figure 3: Placetypes

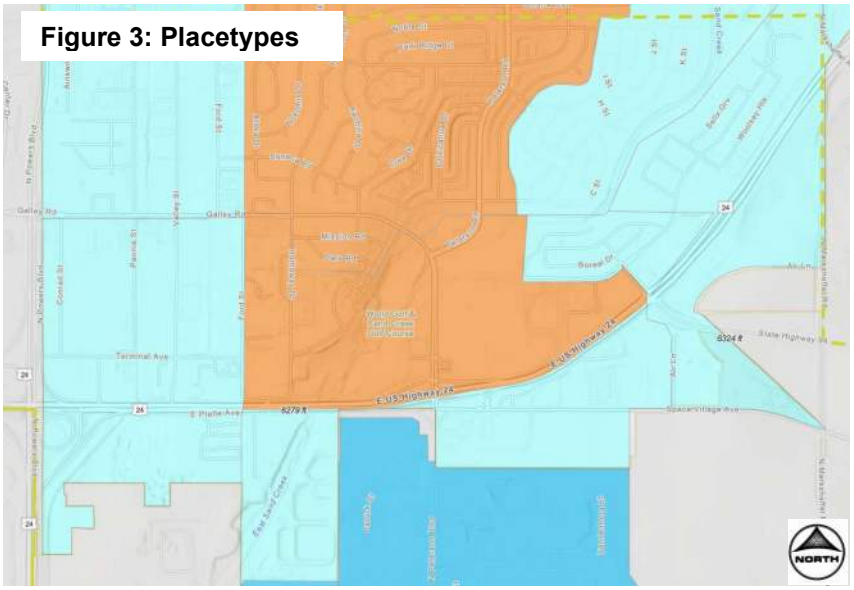


Figure 3: El Paso County Master Plan placetypes map. The Hillpointe Apartments site falls within Urban Residential. (Scale: 1" = 1,500')

Figure 4: Commercial Airport Overlay District

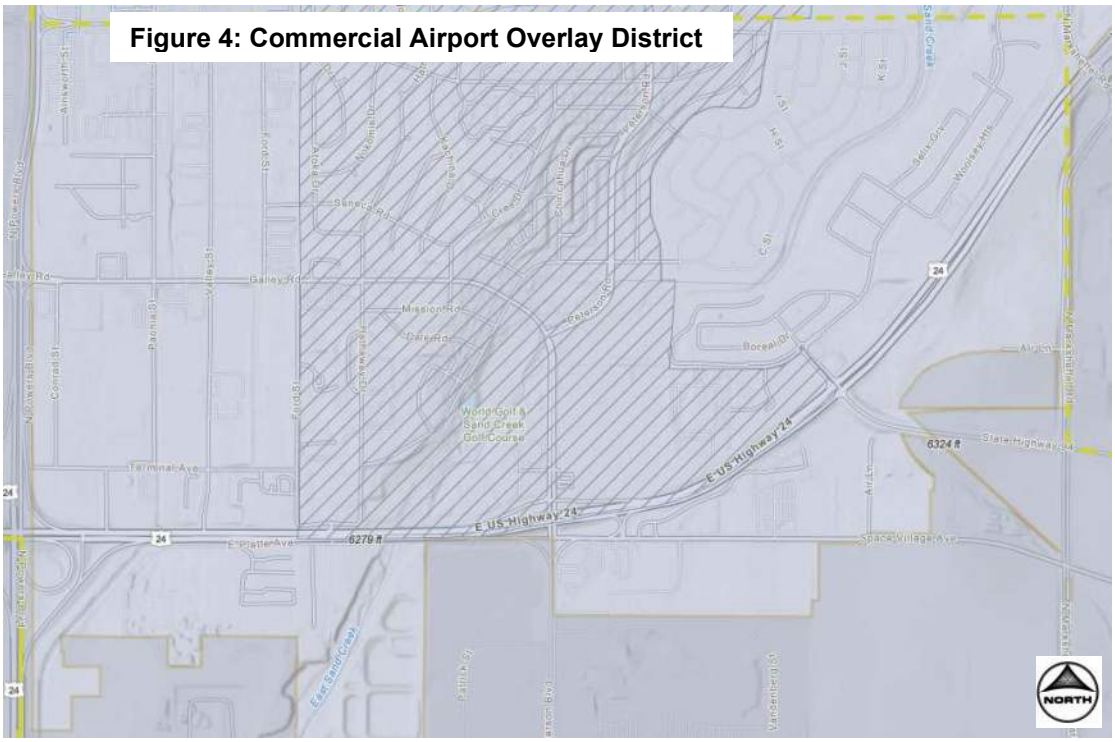


Figure 4: EPC Master Plan Prioiry Development Areas and Zoning Overlay Map. (Scale: 1" = 1,000')

WATER MASTER PLAN

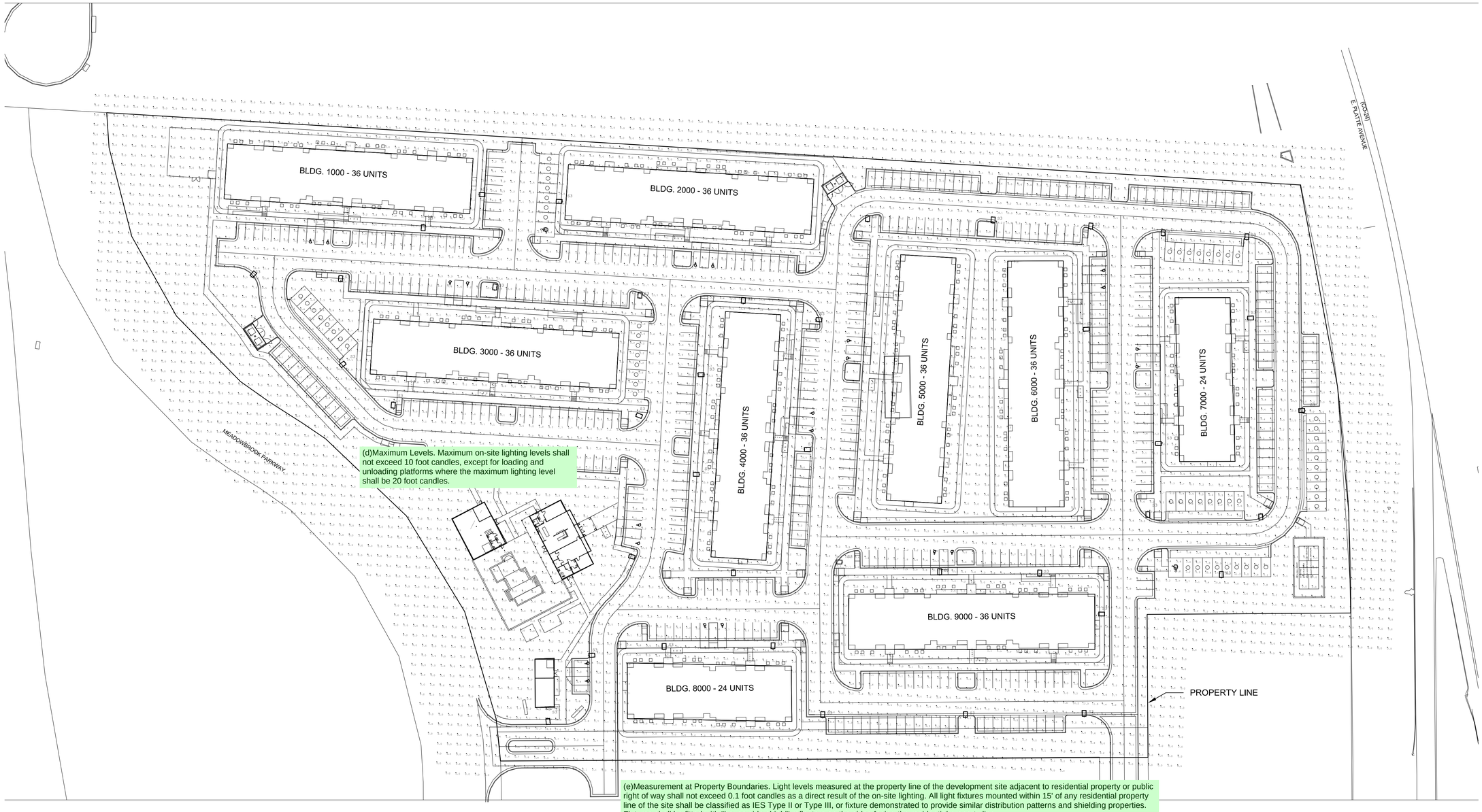
- *Goal 1.1 – Ensure an adequate water supply in terms of quantity, dependability and quality for existing and future development.*
- *Goal 3.1 – Promote cooperation among water providers to achieve increased efficiencies on infrastructure.*
- *Goal 3.2 – Promote cooperation among water providers to achieve increased efficiencies on treatment.*
- *Goal 5.1 – Identify the potential water supply gap at projected full development build-out (2060).*
- *Goal 5.4 – Promote the long-term use of renewable water.*
- *Goal 5.5 – Identify any water supply issues early on in the land development process.*
- *Goal 6.0 – Require adequate water availability for proposed development.*
- *Policy 6.0.8 – Encourage development patterns and higher density, mixed use developments in appropriate locations that propose to incorporate meaningful water conservation measures.*

The project is located in Region 3 and is served by the Cherokee Metropolitan District The district meets or exceeds all state and federal regulations. They strive to cooperate with surrounding providers and customers to ensure proper conservation and storage. Such actions intended to conserve water include the construction of a new water treatment facility and seasonal irrigation policies for all residential and commercial properties. The proposed development will meet all standards set by local, state, and federal

regulations. The developer seeks to maintain quality ground and drinking water, contribute to the local economy, and ensure resources use is sustainable. The applicant understands the water needs for the proposed development. Available data and the water commitment letters for the final plat will allow for predictable water demand to be calculated and compared with availability in the surrounding area.

EL PASO COUNTY PARKS MASTER PLAN - The El Paso County Parks Master Plan does not identify any County master-planned facilities that would be impacted by this project.

ERIC EIFEALDT, 4/24/2026 12:24 PM



(d)Maximum Levels. Maximum on-site lighting levels shall not exceed 10 foot candles, except for loading and unloading platforms where the maximum lighting level shall be 20 foot candles.

(e)Measurement at Property Boundaries. Light levels measured at the property line of the development site adjacent to residential property or public right of way shall not exceed 0.1 foot candles as a direct result of the on-site lighting. All light fixtures mounted within 15' of any residential property line of the site shall be classified as IES Type II or Type III, or fixture demonstrated to provide similar distribution patterns and shielding properties. Fixtures shall be fitted with "house side shield" reflectors on the sides facing the residential property line.

Luminaire Schedule

Symbol	Qty	Tag	Label	Arrangement	Description	Mounting Height	LLF	Luminaire Lumens	Lumi Watt
	42	S3	SLE-200W TYPE III_IESNA2002	Single	SLE-200W	20	0.950	26352	201.

Provide cut sheet of lighting fixture

NORTH
0 500
250

HR GREEN X-refs: Hillpoint_Peterson_Rd_Light_Calcs; TB_24x36_2502477-SDP_OTHERS

DRAWN BY: ELE JOB DATE: 3/20/2026
APPROVED: ELE JOB NUMBER: 2502477
CAD DATE: 4/24/2026
CAD FILE: Hillpoint_Peterson_Rd_Light_Calcs.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

me engineers
M-E Engineers, Inc.
1125 kelly johnson blvd, ste 301
colorado springs, co 80920
t.719.536.0036 / f.719.536.0037
www.me-engineers.com

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
SITE LIGHTING PHOTOMETRICS

SHEET ES 1

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

EL PASO COUNTY
PCM APPLICABILITY FORM

EPC Project Number: PPR TBD PPR2613

This form is to be used by the Engineer of Record to determine if the proposed construction activities are eligible for an exclusion to stormwater quality permanent control measure (PCM) requirements. All "applicable construction activity" within El Paso County (EPC) must comply with the post-construction stormwater management criteria. Reference ECM Appendix I for information about PCMs.

Note that this form only addresses stormwater quality for the site. Even if the site is fully excluded from needing a stormwater quality PCM, the site may still need to address stormwater detention (per DCMv1 Chap 1.5 and ECM Chap 3.2.8.B). However, if the site requires stormwater detention, then it must also address stormwater quality (per DCMv2 Chap 4.1 and ECM Appendix I.7.3). Refer to the Reference Information pages below for more guidance.

Part I. Project Summary			
Project Name:	HILLPOINTE APARTMENTS AT PETERSON ROAD		
Is Stormwater Detention Required?	☒ Yes ☐ No	**Is Water Quality Treatment Required? (i.e.: non-excluded disturbance >1ac)**	☒ Yes ☐ No
Is an ESQCP Required? If "No," Check Applicable Reason	☒ Yes ☐ No	☐ Not an Applicable Construction Activity ☐ Oil & Gas ☐ R-Factor	
Engineer of Record Email Address:	RICHIE.LYON@HRGREEN.COM		

Part II. PCM Exclusions

Note: Questions A through K directly correlate to Part I.E.4.a.i (A) to (K) on page 27 of the 2016 CDPS Statewide Standard MS4 General Permit COR090000 (i.e.: the MS4 Permit), as amended. Document exclusions that apply to the whole project or parts of it.

Questions	Excluded Acreage	Yes	No	Notes
A. Is this project a "Pavement Management Site?"			X	This exclusion applies to the maintenance, rehabilitation, and reconstruction of pavement on existing roads, bridges, bike lanes, and parking along roads. Areas used primarily for parking (i.e.: separate lots not along roadway) or access to parking are not included. No increase in impervious area is allowable.
B. Review two options below to see if project is an "Excluded Roadway Development."				Does not include sidewalks. Does include curb & gutter.
• Does the project include improvements to an existing roadway that adds < 1 acre of paved or gravel area per mile of roadway?			X	If selected, list the proposed additional acreage per mile in Part IV Notes below.
• Does the project include improvements to an existing roadway that adds ≤ 8.25 ft of paved width at any location?			X	If selected, list the proposed additional width in Part IV Notes below.

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

EL PASO COUNTY
PCM APPLICABILITY FORM

EPC Project Number: PPR TBD

Part II. PCM Exclusions (continued)				
Questions	**Excluded Acreage**	**Yes**	**No**	**Notes**
C. Does the project include "Excluded Existing Roadway Areas?"			X	For redevelopment of existing roadways. This exclusion only excludes the original roadway area, it does NOT apply to the entire project. This exclusion applies only when the proposed project will expand the existing roadway width by <2x on average. If selected, list the proposed expanded width in Part IV Notes below.
D. Is the project considered an Aboveground or Underground Utilities activity?			X	Activity can not permanently alter the terrain, ground cover, or drainage patterns from existing conditions.
E. Is the project considered a "Large Lot Single-Family Site"? *This exclusion only pertains to the lots and does not include roadways.*			X	Must be a single-family residential lot or agricultural zoned land with ≥ 2.5 acres per dwelling and total lot impervious area < 10%. If "Yes," notate the percent impervious below in Part IV: Notes.
F. Do Non-Residential or Non-Commercial Infiltration Conditions exist? *Post-development surface conditions do not result in concentrated stormwater flow or surface water discharge during an 80th percentile stormwater runoff event, and the 80th percentile event must be infiltrated.*			X	Exclusion does not apply to residential or commercial sites for buildings. A site-specific study is required and must show rainfall and soil conditions, allowable slopes, surface conditions, and ratios of imperviousness area to pervious area.
G. Is the project land disturbance to Undeveloped Land where undeveloped land remains undeveloped following the activity?			X	Project must be on land with no human made structures such as buildings or pavement. The proposed development must return the disturbed area to its historical condition. See CDPHE's "Standard MS4 Permit FAQ" for more detail on how this exclusion applies.
H. Is the project a Stream Stabilization Site?			X	
I. Is the project a Bike or Pedestrian Trail?			X	Bike lanes for roadways are not included in this exclusion but may qualify if attached to a larger roadway activity that is excluded in A, B or C above. Pedestrian trails (e.g. sidewalks) that are attached to a roadway do not apply.
J. Is the project Oil and Gas Exploration?			X	Activities and facilities associated with oil and gas exploration are excluded.
K. Is the project in a County Growth Area?				El Paso County does not apply this exclusion.

If any exclusions above apply (via a "Yes" for any row), runoff from those areas is excluded from stormwater quality treatment requirements. All runoff from remaining non-excluded disturbed areas will need to be treated by a stormwater quality PCM, unless remaining area is <1ac. If remaining area is >1ac, select at least one Design Standard on the next page.

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Item E is for when a site is using a state water to convey flows to a regional pond. The current design uses storm drain, please revise item E to No and item D to yes.

EL PASO COUNTY
PCM APPLICABILITY FORM

EPC Project Number: PPR TBD

Part III: PCM Information		
Questions	**Yes**	**No**
1. Which of the following Design Standard(s) will the project utilize? *(If a PCM is required, you must select at least one. See Control Measure Requirements identified in MS4 Permit Part I.E.4.a.iv on page 29.)*		
A. Water Quality Capture Volume (WQCV) Standard	X	
B. Pollutant Removal Standard - 80% Total Suspended Solids Removal (TSS) *(must treat runoff to <30mg/L of TSS)*		X
C. Runoff Reduction Standard		X
D. Applicable Development Site Draining to a Regional WQCV Control Measure *(no conveyance via "Waters of the State")*	X?	X
E. Applicable Development Site Draining to a Regional WQCV Facility *(conveyance allowable via "Waters of the State," if the 8 conditions in the MS4 permit are met and documented in the drainage report)*	X	X?
F. Constrained Redevelopment Sites Standard *(must be pre-approved by ECM Administrator)*		X
G. Previous Permit Term Standard		X
2. Will any of the PCMs be located within any other jurisdiction besides EPC?	X	X?

Pond appears to be fully within EPC jurisdiction. Please revise to "No"

Part IV: Notes

Provide info regarding all applicable PCM(s) and PCM Exclusion(s) including location, PCM name(s)/number(s), and additional relevant filings or reports or maintenance agreements, etc. Attach an additional sheet if you need more space. Attaching a detailed summary table would replace the need for any notes here.

The Hillpointe Apartments at Peterson Road are the development of Lot 1 Cimarron Hills Southeast Mixed Used Filing No. 1. The multi-family development drains to Pond A within Tract C of the master development. Pond A is described within the FDR for Cimarron Hills Southeast Mixed Use Filing No. 1 and the plat and design of the PCM incorporated the developed conditions of this site as designed within this application.

Provide PCD file number

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

EL PASO COUNTY
PCM APPLICABILITY FORM

EPC Project Number: PPR TBD

Part V: Signatures

Applicant: This PCM Applicability Form was prepared under my direction and supervision and is correct to the best of my knowledge and belief. It was prepared along with the project design, construction plans, drainage report, specifications, and maintenance and access agreements as required. And it has been reviewed for compliance with the Post Construction Stormwater Management criteria and MS4 Permit requirements.

Stamp and date

_____ _____

Signature and Stamp of Engineer of Record
(If the project is not an Applicable Construction Activity, this line can be signed by the Applicant or their rep, they do not have to be an engineer)

Date

El Paso County: This PCM Applicability Form has been reviewed and the project design, construction plans, drainage report, specifications, and maintenance and access agreements as required, have been reviewed for compliance with the Post Construction Stormwater Management process and MS4 Permit requirements.

_____ _____

Signature of El Paso County Project Engineer

Date

Reference Information:

If a PCM is required, then these additional documents will also need to be submitted:

- PCM Maintenance Agreement
- PCM O&M Manual
- MHFD Detention Basin Design Workbook*
- Proof of Submittal of: Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure*

*Not required for all PCMs, check ECM Appendix I for requirements

The following are screenshots of example Water Quality Treatment Summary Tables. The Excel versions can be found at the EPC DPW Stormwater website linked below. These are optional tables that can be used to summarize water quality treatment and applicable exclusions. Select the table that best suits the project based on the number of basins, PCMs, and/or exclusions. A PDF of the selected table(s) can be attached to this form and/or to the Drainage Report. It is helpful to also include a basic overview map with color shading or hatch patterns that shows areas tributary to each type of PCM (pond, runoff reduction, etc.) and those areas that are not captured by a PCM, with the applicable exclusion(s) labeled.

https://publicworks.elpasoco.com/stormwater/

Water Quality Treatment Summary Table		
Basin ID(s)	**PCM Tributary Area (ac)**	**PCM ID**
A1 - A5	4	Pond 1
B1 - B3	3.25	Pond 2
C, D	5.5	Runoff Reduction
E	10	Excluded*
* Excluded based on ECM App I.7.1.B.5		

Water Quality Treatment Summary Table							
Basin ID	**Total Area (ac)**	**Total Proposed Disturbed Area (ac)**	**Area Trib to Pond A (ac)**	**Disturbed Area Treated via Runoff Reduction (ac)**	**Disturbed Area Excluded from WQ per ECM App I.7.1.C.1 (ac)**	**Disturbed Area Excluded from WQ per ECM App I.7.1.B.# (ac)**	**Applicable WQ Exclusions (App I.7.1.B.#)**
A	4.50	4.50	4.50				
B	1.25	1.25		1.25			
C	6.00	4.00				4.00	ECM App I.7.1.B.5
D	2.50	2.50	1.00		0.50	1.00	ECM App I.7.1.B.7
E	3.00		3.00				
F	8.25						
Total	25.50	12.25	8.50	1.25	0.50	5.00	

Min Required Area to Receive WQ Treatment	**Total Proposed Disturbed Area (ac)**	**Total Proposed Treated Area (ac)**	**Total Proposed Disturbed Area Excluded from WQ (ac)**	**Net Treatment (ac)**
6.75	12.25	9.75	5.50	3.00

Design Standard D, definition of "Waters of the State of Colorado" per MS4 Permit:

> *"Any and all surface waters and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed. This definition can include water courses that are usually dry."*
>
> The following website shows Waters of the State of Colorado:
>
> https://cdphe.maps.arcgis.com/apps/Viewer/index.html?appid=f1541d2f21834642ba1551c674fd4a79

Design Standard E, additional info from the MS4 Permit:

> *Before discharging to a water of the state, at least 20 percent of the upstream imperviousness of the applicable development site must be disconnected from the storm drainage system and drain through a receiving pervious area control measure comprising a footprint of at least 10 percent of the upstream disconnected impervious area of the applicable development site. The control measure must be designed in accordance with a design manual identified by the permittee. In addition, the stream channel between the discharge point of the applicable development site and the regional WQCV facility must be stabilized.*
>
> Below are the 8 conditions that must be met:
>
> *1) The regional WQCV facility must be implemented, functional, and maintained following good engineering, hydrologic and pollution control practices.*
>
> *2) The regional WQCV facility must be designed and maintained for 100% WQCV for its entire drainage area.*
>
> *3) The regional WQCV facility must have capacity to accommodate the drainage from the applicable development site.*
>
> *4) The regional WQCV facility be designed and built to comply with all assumptions for the development activities planned by the permittee within its drainage area, including the imperviousness of its drainage area and the applicable development site.*
>
> *5) Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the facility. Consideration of drain time shall include maintaining vegetation necessary for operation of the facility (e.g., wetland vegetation).*
>
> *6) The permittee shall meet the requirements in Parts I.E.4.a.v. and vii. and Part I.E.4.b. for the regional WQCV facility consistent with requirements and actions for control measures.*
>
> *7) The regional WQCV facility must be subject to the permittee's authority consistent with requirements and actions for a Control Measure in accordance with Part I.E.4.a.iv.*
>
> *8) Regional Facilities must be designed and implemented with flood control or water quality as the primary use. Recreational ponds and reservoirs may not be considered Regional Facilities. Water bodies listed by name in surface water quality classifications and standards regulations (5 CCR 1002-32 through 5 CCR 1002-38) may not be considered regional facilities.*

EL PASO COUNTY
COLORADO

DEPARTMENT OF PUBLIC WORKS | ENGINEERING DIVISION

Road Impact Fee Acknowledgement Form

Property in the unincorporated area of the El Paso County that receives Land Use Approval either in a public hearing or administratively, is subject to the payment of Road Impact Fees. After December 31, 2024, the fee is paid for new residential and non-residential uses and structures and expansions of non-residential uses and structures. For detailed information on the program see the El Paso County Road Impact Fee webpage at publicworks.elpasoco.com/road-impact-fees/.

Land Use Approval is defined as an approval or permit issued for a new use, new structure, or expansion of an existing use or structure (not to include expansion of single-family detached homes) on a parcel of property in unincorporated El Paso County that generates new trips for such parcel. Examples include, but are not limited to building permits, access permits, driveway permits, site plans, site development plans, special use approvals, and variance of use approvals.

Owner Authorization:

I hereby agree to abide by the rules and regulations of the Road Impact Fee program as adopted by the Board of County Commissioners. I acknowledge that it is my responsibility as the owner/developer to pay Road Impact Fees at the last Land Use Approval.

Road Impact Fee*: $ tbd Multi Family: $2,585/dwelling unit x 300 units = $775,500

Payment Due At:

☐ **At Building Permit** (Fees finalized at building permit application)

☑ **Approval of Current Application**

(*) Road Impact Fee is subject to change based on the current Road Impact Fee Schedule at the time of last land use approval

Owner/Developer(s) Name: Mark Foster dba Hillpointe, LLC.

Owner/Developer(s) Signature: _____ Date: 4/20/2026

DOMBROWSKI, COLIN, 4/28/2026 10:59 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

Please note that the Final Plat and Rezoning must be approved prior to final review and approval of this Site Development Plan.

Comments provided herein are preliminary, and subject to change dependent on the Plat and Rezoning status / conditions.

Comments are provided under the assumed future Final Plat and Rezoning conditions.

Files:
Final Plat: SF2420 (expired), SF26XX (pending submittal)
Rezoning: P265

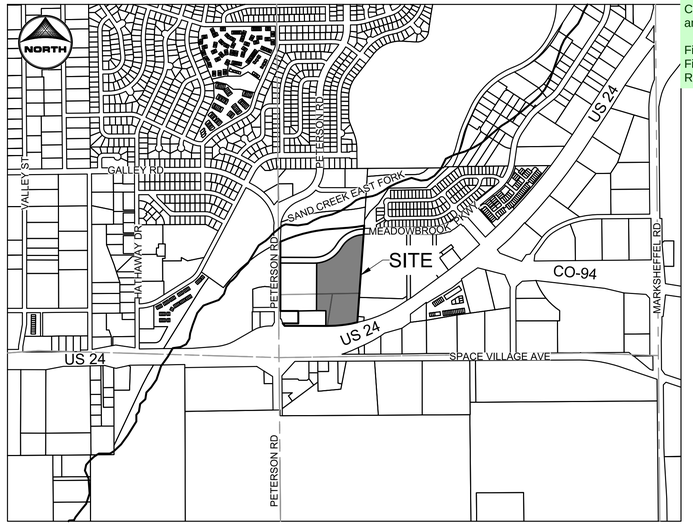
LEGAL DESCRIPTION:

Please provide current legal description of parcel, not what it will be after plat.

LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1

SITE DEVELOPMENT PLAN SUMMARY:

PROPERTY ADDRESS:	725 PETERSON ROAD COLORADO SPRINGS, COLORADO 80915 635 PETERSON ROAD COLORADO SPRINGS, COLORADO 80915 6902 EAST HIGHWAY 24 COLORADO SPRINGS, COLORADO 80915
PARCEL NUMBER:	PORTIONS OF 5408007001, 5408007004, 5408007008
PROPERTY AREA:	LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1 14.092 AC
EXISTING ZONING:	CR CAD-O
PROPOSED ZONING:	RM-30
CURRENT USE:	VACANT COMMERCIAL LOTS
PROPOSED USE:	RESIDENTIAL MULTI-DWELLING
PROPOSED TOTAL GROSS BUILDING AREA:	133,729 SF (3.07 AC.)
PROPOSED LOT AREA COVERAGE:	6.55 AC. PAVEMENT (46.3%) 3.07 AC. ROOF (21.7%) 4.52 AC. OPEN SPACE / LANDSCAPING (32.0%)
EXISTING PERCENT IMPERVIOUSNESS:	2.24%
PROPOSED PERCENT IMPERVIOUSNESS:	(3.07 AC. x 90% + 6.55 AC. x 100% + 4.52 AC. x 0%) / 14.41 AC. = 65.9%
FLOODPLAIN STATEMENT:	ZONE X (MAP NO. 08041C0754G, DATED DECEMBER 7, 2018) PER THIS MAP THE SITE IS NOT LOCATED WITHIN A FLOODPLAIN
TYPE OF CONSTRUCTION:	APARTMENTS - TYPE VA CLUBHOUSE/FITNESS - TYPE VB GARAGES - TYPE VB
FIRE SYSTEM:	APARTMENTS - SPRINKLER PER NFPA 13R
MAXIMUM BUILDING HEIGHT:	40'
PROPOSED BUILDING HEIGHT:	35.25' (USING MID-POINT OF PITCHED ROOF)
FRONT SETBACK (NORTH):	25.0'
SIDE SETBACK (WEST/EAST):	15.0'
REAR SETBACK (WEST/SOUTH):	15.0'
SCOPE OF WORK:	PROPOSED ARE NINE (9) MULTI-FAMILY APARTMENT BUILDINGS TOTALING 300 UNITS, SITE AMENITIES CLUBHOUSE AND FITNESS BUILDINGS, MAIL ROOM BUILDING, SITE PARKING LOT.
CONSTRUCTION:	SPRING 2027
FINAL STABILIZATION:	SUMMER 2028



VICINITY MAP
SCALE: 1" = 1000'

PROJECT CONTACTS:

OWNER
JOVENCHI II, MARATHON HOLDINGS LLP,
JOHN VENEZIA ESTATE
4779 N. ACADEMY BOULEVARD
COLORADO SPRINGS, CO 80918
EMAIL: DEAN@VINTAGEDEV.COM
TELE: 719-491-2158

DEVELOPER
HILLPOINTE, LLC.
3773 CHERRY CREEK DRIVE NORTH
SUITE 801 EAST TOWER
DENVER, CO 80209
CONTACT: MARK FOSTER
EMAIL: MFOSTER@HILLPOINTE.COM

APPLICANT/OWNER'S REPRESENTATIVE
HR GREEN DEVELOPMENT, LLC.
1975 RESEARCH PKWY SUITE 160
COLORADO SPRINGS, CO 80921
TELE: (719) 394-2435
ATTN: COLLEEN MONAHAN
EMAIL: CMONAHAN@HRGREEN.COM

CIVIL ENGINEER
HR GREEN DEVELOPMENT, LLC.
1975 RESEARCH PKWY SUITE 160
COLORADO SPRINGS, CO 80921
TELE: (719) 394-2435
ATTN: RICHIE LYON, P.E.
EMAIL: RICHIE.LYON@HRGREEN.COM

PLANNING & LANDSCAPE ARCHITECTURE:
HR GREEN DEVELOPMENT, LLC.
1975 RESEARCH PKWY SUITE 160
COLORADO SPRINGS, CO 80921
TELE: (719) 394-2435
ATTN.: BLAINE PERKINS
EMAIL: BLAINE.PERKINS@HRGREEN.COM

GEOTECHNICAL ENGINEER
VALLEYSHORE ENGINEERING, LLC.
127 GRAND VISTA
VONORE, TENNESSEE 37885
TELE: (865) 900-3286
ATTN: SAUL MOSLEHY, PHD.

TRAFFIC ENGINEER
SM ROCHA,LLC.
6 SOUTH TEJON STREET, SUITE 618
COLORADO SPRINGS, CO 80903
TELE: (719) 203-6639
ATTN: MIKE ROCHA
EMAIL: MIKE@SMROCHA.COM

SURVEYOR
MATRIX DESIGN GROUP
2435 RESEARCH PARKWAY, SUITE 300
COLORADO SPRINGS, CO 80920
TELE: (719) 575-0100

SHEET INDEX:

1 - COVER
2 - SITE PLAN
3 - PRELIMINARY GRADING PLAN
4 - UTILITY PLAN
5 - FIRE PROTECTION PLAN
6 - SITE DETAILS
7 - SITE DETAILS
8 - SITE DETAILS
9 - SITE DETAILS

NOTES:

1. THE OWNER AGREES ON BEHALF OF HIM/HERSELF AND ANY DEVELOPER OR BUILDER SUCCESSORS AND ASSIGNEES THAT SUBDIVIDER AND/OR SAID SUCCESSORS AND ASSIGNS SHALL BE REQUIRED TO PAY TRAFFIC IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM RESOLUTION (RESOLUTION NO. 19-471), OR ANY AMENDMENTS THERETO, AT OR PRIOR TO THE TIME OF BUILDING PERMIT SUBMITTALS. THE FEE OBLIGATION, IF NOT PAID AT FINAL PLAT RECORDING, SHALL BE DOCUMENTED ON ALL SALES DOCUMENTS AND ON PLAT NOTES TO ENSURE THAT A TITLE SEARCH WOULD FIND THE FEE OBLIGATION BEFORE SALE OF THE PROPERTY.

Include Floodplain Statement, Geologic Hazard and ADA notes

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
BARBED WIRE FENCE		
WOODEN FENCE		
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN	G	G
SANITARY SEWER		
STORM DRAIN		
LANDSCAPE DRAIN		
ROOF DRAIN		
WATER MAIN	W	W
SWALE		
TRAIL		
ADA ROUTE		
CURB & GUTTER		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		

STORM SEWER

	EXISTING	PROPOSED
MANHOLE	D	D
STORM INLET		
LANDSCAPE DOME INLETS		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER

CLEAN OUT		
MANHOLE	S	S
PLUG		

WATER

FIRE HYDRANT		
FIRE DEPT. CONNECTION		
GATE VALVE		
MANHOLE	W	W
METER	M	M
TEE		
REDUCER		

DRY UTILITIES

ELECTRIC METER
ELECTRIC PEDESTAL
ELECTRICAL CABINET
ELECTRIC VAULT
ELECTRIC VEHICLE CHARGER
FIBER OPTIC PULL BOX
FIBER OPTIC MANHOLE
FIBER OPTIC PEDESTAL
FIBER OPTIC SIGN
FIBER OPTIC VAULT
GAS METER
GAS SIGN
GAS VAULT
TRANSFORMER
LIGHT POLE

MISCELLANEOUS

SIGN
BOLLLARD
ACCESSIBLE PARKING
PARKING COUNT (10)

PARKING SPACE CALCULATIONS						
AREA TYPE	# OF DU'S OR AREA	SEAT:PARKING RATIO	REQUIRED SPACES	ADA STANDARD STALLS REQ'D.	ADA VAN STALLS REQ'D	
RESIDENTIAL, MULTI-FAMILY						
STUDIO OR EFFICIENCY		1.1 SPACES PER DU				
1 BEDROOM		1.5 SPACES PER DU				
2 BEDROOM	300	1.7 SPACES PER DU	510	11	5	
3 BEDROOM		2.0 SPACES PER DU				
GUEST		1 SPACE PER 3 DU				
TOTAL	**300**		510	11	5	
	STD. SURFACE STALLS	ADA SURFACE STALLS	STD. GARAGE STALLS	ADA GARAGE STALLS	TOTAL STALLS	PARKING RATIO
PROPOSED PARKING	428	24	58	2	512	1.71

PCD FILE NO.: PPR-26-13

DRAWN BY: CMD | JOB DATE: 4/23/2026
APPROVED: RDL | JOB NUMBER: 2502477
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
COVER

SHEET CV | 1

HR GREEN Xrefs: TB_24x36_2502477-SDP; VICINITY-MAP

DOMBROWSKI, COLIN, 4/28/2026 10:59 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

AURORA CROSSROADS APARTMENTS
7010 - 7285 CROSSBUCK PT.
SCH. NO. 5406305001
PLAT NO. R14975
ZONING: CR RS-5000 CAD-O
LEGAL: LOT 1 CROSSROADS MIXED USE FIL. NO. 1
AREA: 12.7 AC.
USE: MULTI-UNITS (9 & UP)

BLDG. 1000 - 36 UNITS
BLDG. 2000 - 36 UNITS
BLDG. 3000 - 36 UNITS
BLDG. 4000 - 36 UNITS
BLDG. 5000 - 36 UNITS
BLDG. 6000 - 36 UNITS
BLDG. 7000 - 24 UNITS
BLDG. 8000 - 24 UNITS
BLDG. 9000 - 36 UNITS
DOG PARK (2,500 SF)
OPEN SPACE LANDSCAPED AREA
30' SANITARY SEWER ESMT., REC. NO. 207095288
15.00' SIDE BLDG. SETBACK
10.00' D&U ESMT.
PROPERTY BOUNDARY (TYP.)
160 LF OF SITE WALL, AVG. HT. OF 24", MAX. HT. OF 36"
10' UTIL. ESMT. BK T-3, PG 112
S3° 28' 07"W 1227.75'
Ensure all easements are shown and labeled. Compare with Final Plat (SF2420).
INclude square footage for each building
4' WIDTH, 1" DEPTH TO FL CONC. DRAIN PAN (TYP.)
5.00' ATTACHED CONC. SIDEWALK
5.00' CONC. SW
7.00' ATTACHED CONC. SIDEWALK
28' ASPHALT MAT DRIVE AISLES (TYP.)
LANDSCAPED AREAS (TYP.)
R3.00' (TYP.)
R25.00' (TYP.)
R=2360.00'
L=364.82'
Δ=5°18'16"
20.00' FRONT LANDSCAPE SETBACK
25.00' FRONT BLDG. SETBACK
7.00' CONC. SW
28.00'
DUMPSTER ENCLOSURE (TYP.) SEE DETAIL
10.00' D&U ESMT.
20' ESMT. AGREEMENT REC. NO. 222061001
EX. ROAD CENTERLINE
N32° 27' 36"E 40.96'
MEADOWBROOK PARKWAY
PUBLIC 160' R.O.W. NON-RES. COLLECTOR
5' PUBLIC SIDEWALK (BOTH SIDES)
SIGHT DISTANCE LINE (NON-RES. COLLECTOR, DESIGN SPEED: 30 MPH, DISTANCE OF 335 FT.)
EX. EPC TYPE A CURB & GUTTER
EX. STRIPING
R=340.00'
L=402.73'
Δ=52°29'35"
MEADOWBROOK PARKWAY R.O.W. IMPROVEMENTS BY OTHERS, SEE CIMARRON HILLS SOUTHEAST FILING NO. 1 (SF2420) SHOWN AS EXISTING ON THIS PLAN
R.O.W. LINE (TYP.)
EX. STORM SEWER INLET
TRACT A
+/-6.752 AC.
EIGHT (8) UNIT GARAGE STRUCTURE (TYP.)
AC CONDENSER UNIT (TYP.)
18.00'
9.00'
PARKING COUNT (TYP.)
BIKE RACK (TYP.)
CURB RAMPS PER EPC SD_2-40 & SD_2-41 (TYP.)
SEE ROADWAY SECTION DETAILS ON SHEET 6
Per ECM Section 2.3.8 Roadways shall have a turnaround. Please provide deviation.
EPC TYPE A C&G (TYP.)
LANDSCAPED AREA
60.00'
EX. FENCE (TYP.)
R=1780.00'
L=421.00'
Δ=13°33'05"
15.00' REAR BLDG. SETBACK
10.00' D&U ESMT.
25.00' REAR LANDSCAPE SETBACK
TEN (10) UNIT GARAGE STRUCTURE (TYP.)
LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1
+/-14.092 AC.
This is not the current name for this parcel
SEE ROADWAY SECTION DETAILS ON SHEET 6
40.00'
7.00'
R3.00'
TEN (10) UNIT GARAGE STRUCTURE INCL. 1 ADA (TYP.)
PICKLEBALL COURT 1,800 SF
15.00' REAR/SIDE BLDG. SETBACK
10.00' D&U ESMT.
N0° 23' 14"W 209.00'
ADA RAMP ACCESS, SEE GRADING PLAN, FOR CALLOUTS (TYP.)
DRIVE AISLE CENTERLINE (TYP.)
ADA ACCESS ROUTE (TYP.)
FITNESS CENTER 1,624 GROSS SQ. FT.
CLUBHOUSE BUILDING 2,880 GROSS SQ. FT.
SWIMMING POOL
OUTDOOR KITCHEN AREA
FIRE PIT AREA
MAIL BLDG. 1,000 GROSS SQ. FT.
STOP SIGN MUTCD R-1
PUBLIC ADA ACCESS ROUTE
PRIMARY ACCESS TO SITE FROM MEADOWBROOK PARKWAY SHARED ACCESS EASEMENT, SEE FINAL PLAT (SF2420) REC. NO. _____
MONUMENT SIGN (SEPARATE PERMIT)
EX. STORM SEWER INLET
SIGHT DISTANCE LINE (NON-RES. COLLECTOR, DESIGN SPEED: 30 MPH, DISTANCE OF 335 FT.)
TRACT B
+/-7.675 AC.
Per the TIS, "an eastbound right turn deceleration lane and westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may also be required." Please add these turn lanes to the plan and reference Construction Drawing set where design is located.
EPC TYPE A C&G (TYP.)
S0° 23' 14"E 665.83'
10.00' D&U ESMT.
PROPERTY BOUNDARY (TYP.)
30' UTILITY ESMT. (CIMARRON HILLS SE 1)
SECONDARY, EMERGENCY ACCESS FROM PETERSON ROAD (RIGHT-IN/RIGHT-OUT), GATED W/ KNOX BOX DESIGNED BY OTHERS (EPC NO. SF2420)
30' ACCESS ESMT. REC. NO. 1001074
50' UTILITY ESMT. (CIMARRON HILLS SE F1)
28.00'
N89° 36' 45"E 131.18'
EX. PVT. DETENTION POND FOREBAYS (EPC NO. SF2420)
TRACT C
+/- 2.045 AC.
EX. PVT. FULL SPECTRUM DETENTION POND PER EPC NO. SF2420 (OWNED AND MAINTAINED BY METRO DISTRICT)
MATCHLINE A-A
MATCHLINE A-A
50' UTILITY ESMT. (CIMARRON HILLS SE F1)
E. PLATTE AVENUE (CO-24) PUBLIC - ROW VARIES
PETERSON ROAD
ACCESS FROM SOUTH-BOUND PETERSON ROAD TO BE CLOSED OFF
E. PLATTE AVENUE (CO-24) OFF-RAMP
NORTH
0
50
25

PCD FILE NO.: _____

DRAWN BY: CMD	JOB DATE: 4/28/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: RDL	JOB NUMBER: 2502477	0 1"	
CAD DATE: 4/28/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Site Plan			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
SITE PLAN

SHEET SP 2

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; 01-XC-UTIL; TB_24x36_2502477-SDP; 00-XC-UTIL

DOMBROWSKI, COLIN, 4/28/2026 11:00 AM

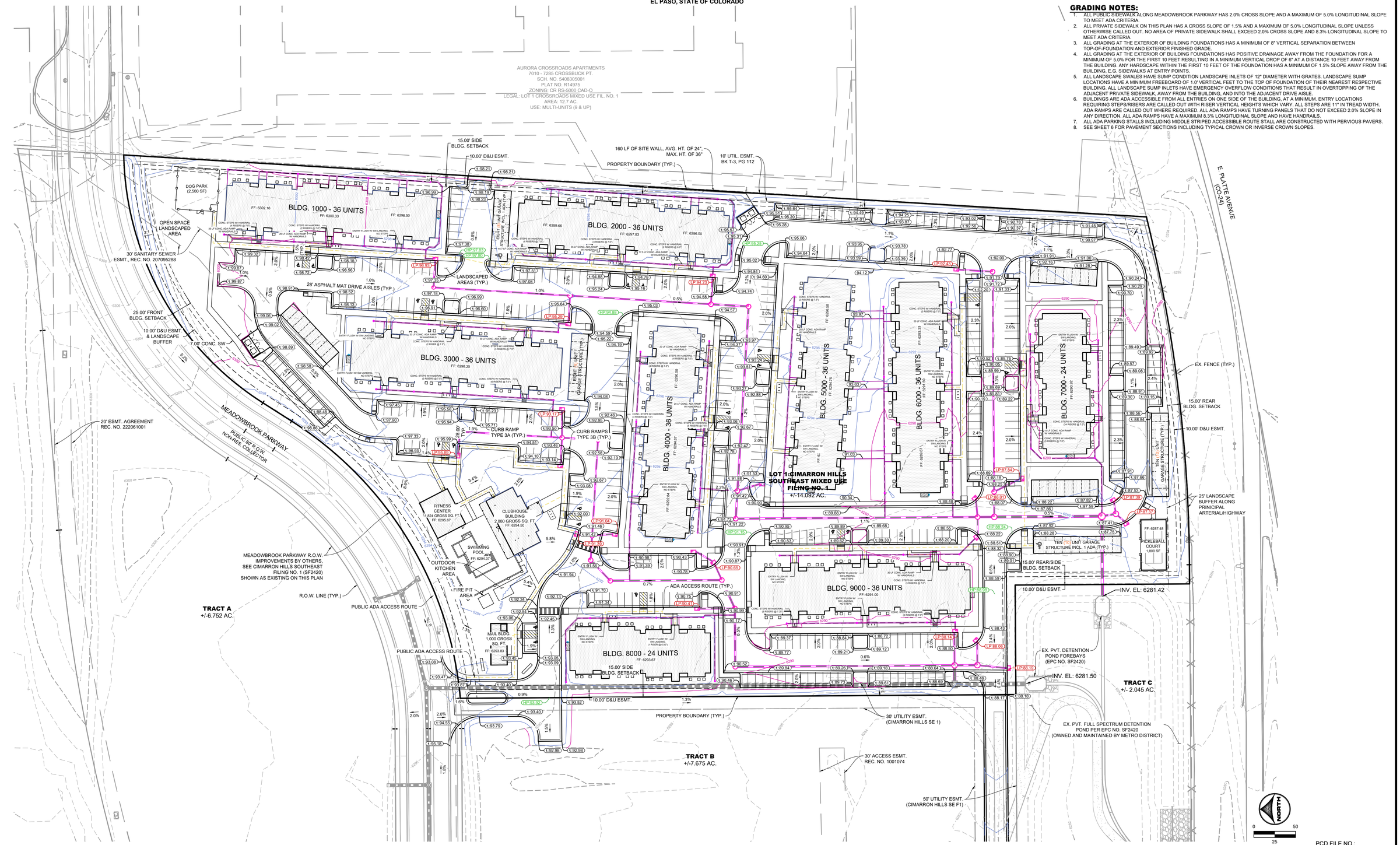
HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

AURORA CROSSROADS APARTMENTS
7010 - 7285 CROSSBUCK PT.
SCH. NO. 5408305001
PLAT NO: R14975
ZONING: CR RS-5000 CAD-O
LEGAL: LOT 1 CROSSROADS MIXED USE FIL. NO. 1
AREA: 12.7 AC.
USE: MULTI-UNITS (9 & UP)

GRADING NOTES:

1. ALL PUBLIC SIDEWALK ALONG MEADOWBROOK PARKWAY HAS 2.0% CROSS SLOPE AND A MAXIMUM OF 5.0% LONGITUDINAL SLOPE TO MEET ADA CRITERIA.
2. ALL PRIVATE SIDEWALK ON THIS PLAN HAS A CROSS SLOPE OF 1.5% AND A MAXIMUM OF 5.0% LONGITUDINAL SLOPE UNLESS OTHERWISE CALLED OUT. NO AREA OF PRIVATE SIDEWALK SHALL EXCEED 2.0% CROSS SLOPE AND 8.3% LONGITUDINAL SLOPE TO MEET ADA CRITERIA.
3. ALL GRADING AT THE EXTERIOR OF BUILDING FOUNDATIONS HAS A MINIMUM OF 8" VERTICAL SEPARATION BETWEEN TOP-OF-FOUNDATION AND EXTERIOR FINISHED GRADE.
4. ALL GRADING AT THE EXTERIOR OF BUILDING FOUNDATIONS HAS POSITIVE DRAINAGE AWAY FROM THE FOUNDATION FOR A MINIMUM OF 5.0% FOR THE FIRST 10 FEET RESULTING IN A MINIMUM VERTICAL DROP OF 6" AT A DISTANCE 10 FEET AWAY FROM THE BUILDING. ANY HARDSCAPE WITHIN THE FIRST 10 FEET OF THE FOUNDATION HAS A MINIMUM OF 1.5% SLOPE AWAY FROM THE BUILDING, E.G. SIDEWALKS AT ENTRY POINTS.
5. ALL LANDSCAPE SWALES HAVE SUMP CONDITION LANDSCAPE INLETS OF 12" DIAMETER WITH GRATES. LANDSCAPE SUMP LOCATIONS HAVE A MINIMUM FREEBOARD OF 1.0' VERTICAL FEET TO THE TOP OF FOUNDATION OF THEIR NEAREST RESPECTIVE BUILDING. ALL LANDSCAPE SUMP INLETS HAVE EMERGENCY OVERFLOW CONDITIONS THAT RESULT IN OVERTOPPING OF THE ADJACENT PRIVATE SIDEWALK, AWAY FROM THE BUILDING, AND INTO THE ADJACENT DRIVE AISLE.
6. BUILDINGS ARE ADA ACCESSIBLE FROM ALL ENTRIES ON ONE SIDE OF THE BUILDING, AT A MINIMUM. ENTRY LOCATIONS REQUIRING STEPS/RISERS ARE CALLED OUT WITH RISER VERTICAL HEIGHTS WHICH VARY. ALL STEPS ARE 11" IN TREAD WIDTH. ADA RAMPS ARE CALLED OUT WHERE REQUIRED. ALL ADA RAMPS HAVE TURNING PANELS THAT DO NOT EXCEED 2.0% SLOPE IN ANY DIRECTION. ALL ADA RAMPS HAVE A MAXIMUM 8.3% LONGITUDINAL SLOPE AND HAVE HANDRAILS.
7. ALL ADA PARKING STALLS INCLUDING MIDDLE STRIPED ACCESSIBLE ROUTE STALL ARE CONSTRUCTED WITH PERVIOUS PAVERS.
8. SEE SHEET 6 FOR PAVEMENT SECTIONS INCLUDING TYPICAL CROWN OR INVERSE CROWN SLOPES.



PCD FILE NO.: _____

DRAWN BY:	CMD	JOB DATE:	4/21/2026
APPROVED:	RDL	JOB NUMBER:	2502477
CAD DATE:	4/28/2026		
CAD FILE:	J:\2025\2502477\CAD\Dwgs\C\SDP\Grading Plan		

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
PRELIMINARY GRADING PLAN

SHEET GR 3

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; TB_24x36_2502477; SDP; 01-XC-UTIL; 00-XC-UTIL

DOMBROWSKI, COLIN, 4/28/2026 11:00 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

UTILITY NOTES:

1. ALL PRIVATE STORM SEWER INFRASTRUCTURE IS OWNED AND MAINTAINED BY THE OWNER/DEVELOPER OR THEIR ASSIGNS.
2. ALL PUBLIC STORM SEWER WITHIN THE MEADOWBROOK PARKWAY RIGHT-OF-WAY IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
3. ALL PUBLIC STORM SEWER WITHIN THE DETENTION POND TRACT IS OWNED AND MAINTAINED BY THE METROPOLITAN DISTRICT AND IS DESIGNED BY OTHERS AND IS SHOWN AS EXISTING CONDITIONS ON THIS PLAN.
4. ALL BUILDINGS HAVE A ROOF DRAIN SYSTEM AND SECONDARY LANDSCAPE STORMWATER DRAIN SYSTEM THAT CONNECT TO THE PRIVATE STORM SEWER SYSTEM WITHIN THE DRIVE AISLES. ALL DOWNSPOUTS ARE 4" DIAMETER OR EQUIVALENT CAPACITY. ALL ROOF DRAIN SYSTEMS AND LANDSCAPE DRAIN SYSTEMS ARE 6" DIAMETER PVC AND CONNECT EITHER TO PRIVATE RCP STORM SEWER WITHIN DRIVE AISLES OR DIRECTLY INTO PRIVATE INLETS OR MANHOLES.
5. ALL PROPOSED PRIVATE WATER INFRASTRUCTURE IS SPECIFIED AS:
   - 5.1. WATER MAIN IS 8" PVC (C900 DR-14).
   - 5.2. FIRE SERVICE LINES ARE 4" HDPE (PE 4710) TO ALL BUILDINGS.
   - 5.3. DOMESTIC SERVICES ARE 2" PE 4710 SDR 9 CTS TO APARTMENT BUILDINGS.
   - 5.4. DOMESTIC SERVICE TO THE CLUBHOUSE IS 1" PE 4710 SDR 9 CTS.
   - 5.5. DOMESTIC SERVICE TO THE FITNESS CENTER IS 3/4" PE 4710 SDR 9 CTS.
   - 5.6. PRIVATE FIRE HYDRANT BRANCH LINES AND HYDRANTS ARE 6" PVC (C900 DR-14).
6. ALL PROPOSED PRIVATE SANITARY SEWER MAIN IS 8" PVC (SDR 26) AND DOMESTIC SANITARY SEWER SERVICES ARE 6" PVC (SDR 26) TO APARTMENT BUILDINGS, CLUBHOUSE, AND FITNESS CENTER.
7. TWO (2) EV CHARGING STATION STALLS ARE TO BE PROVIDED WITHIN THE DEVELOPMENT. CONDUIT IS TO BE INSTALLED FOR FUTURE CHARGER INSTALLATION. UP TO (1) ONE EV CHARGING STATION STALL PER BUILDING.
8. SANITARY SEWER AND STORM SEWER MANHOLE STRUCTURE SIZES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE TO BE FINALIZED AT CONSTRUCTION DRAWING LEVEL.
9. UTILITY CONFLICTS REQUIRING LOWERINGS ARE TO BE DETERMINED AT CONSTRUCTION DRAWING LEVEL.

AURORA CROSSROADS APARTMENTS
7010 - 7285 CROSSBUCK PT.
SCH. NO. 5408305001
PLAT NO. R14975
ZONING: CR RS-5000 CAD-O
LEGAL: LOT 1 CROSSROADS MIXED USE FIL. NO. 1
AREA: 12.7 AC.
USE: MULTI-UNITS (9 & UP)

BLDG. 1000 - 36 UNITS
BLDG. 2000 - 36 UNITS
BLDG. 3000 - 36 UNITS
BLDG. 4000 - 36 UNITS
BLDG. 5000 - 36 UNITS
BLDG. 6000 - 36 UNITS
BLDG. 7000 - 24 UNITS
BLDG. 8000 - 24 UNITS
BLDG. 9000 - 36 UNITS
DOG PARK (2,500 SF)
OPEN SPACE LANDSCAPED AREA
LANDSCAPE AND ROOF DRAIN LATERAL SYSTEM (TYP.)
15.00' SIDE BLDG. SETBACK
10.00' D&U ESMT.
PROPERTY BOUNDARY (TYP.)
10' UTIL. ESMT. BK T-3, PG 112
EV CHARGER
PR. PVT. STM INLET (TYP.) (ALL SUMP CONDITION)
PR. PVT. 4' DIA. SAN. SEWER MH
PR. PVT. 5' DIA. SAN. SEWER MH
PR. PVT. 8" PVC SAN. SEWER MAIN (TYP.)
ELEC. TRANSFORMER PAD (TYP.)
START OF PRIVATE STORM SYSTEM B
PR. PVT. HYDRANT (TYP.)
FIRE SERVICE CONNECTION (TYP.)
PVT. 4" HDPE FIRE SERVICE LINE (TYP.) FSL'S TO WATER RISER ROOMS
PVT. 2" PE DOMESTIC SERVICE LINES TO WATER RISER ROOM
EIGHT (8) UNIT GARAGE STRUCTURE (TYP.)
PR. PVT. STM. MH (TYP.)
PR. PVT. 12" LANDSCAPE DRAIN LINE (TYP.)
PR. PVT. 12" DIA. GRATED LANDSCAPE INLET (TYP.)
PR. PVT. 6" PVC SAN. SEWER SERVICE (TYP.)
PR. PVT. 6" ROOF DRAIN LINE (TYP.)
PR. PVT. 8" PVC WATER MAIN (TYP.)
PR. PVT. HDPE STM. MAIN (TYP.)
LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1 +/-14.092 AC.
EX. FENCE (TYP.)
15.00' REAR BLDG. SETBACK
10.00' D&U ESMT.
TEN (10) UNIT GARAGE STRUCTURE INCL. 1 ADA (TYP.)
25' LANDSCAPE BUFFER ALONG PRINICIPAL ARTERIAL/HIGHWAY
PICKLEBALL COURT 1,800 SF
15.00' REAR/SIDE BLDG. SETBACK
PVT. RCP STM. PIPE INFLOW OF STORM SYSTEM B TO PUB. (METRO DISTRICT) FOREBAY
PR. PVT. 5' CDOT TYPE R CURB INLET (TYP.)
EX. DETENTION POND FOREBAYS (EPC NO. SF2420)
EX. PVT. SAN. SEWER STUB 8" PVC INV.: 6276.97
EX. FULL SPECTRUM DETENTION POND PER EPC NO. SF2420 (OWNED AND MAINTAINED BY METRO DISTRICT)
E. PLATTE AVENUE (CO-24)
EX. PUB. SAN. MH
EX. PUB. 18" PVC SAN. MAIN
30' SANITARY SEWER ESMT., REC. NO. 207095288
PR. PVT. 4' DIA. SAN. SEWER MH
25.00' FRONT BLDG. SETBACK
10.00' D&U ESMT. & LANDSCAPE BUFFER
7.00' CONC. SW
20' ESMT. AGREEMENT REC. NO. 222061001
MEADOWBROOK PARKWAY
PUBLIC 80' R.O.W. NON-RES. COLLECTOR
(2) EV CHARGERS
START OF PRIVATE STORM SYSTEM A
FITNESS CENTER 1,924 GROSS SQ. FT.
CLUBHOUSE BUILDING 2,880 GROSS SQ. FT.
SWIMMING POOL
OUTDOOR KITCHEN AREA
FIRE PIT AREA
MAIL BLDG. 1,000 GROSS SQ. FT.
PVT. SAN. SEWER STUB FOR SWIMMING POOL CONNECTION
MONUMENT SIGN (SEPARATE PERMIT)
MEADOWBROOK PARKWAY R.O.W. IMPROVEMENTS BY OTHERS, SEE CIMARRON HILLS SOUTHEAST FILING NO. 1 (SF2420) SHOWN AS EXISTING ON THIS PLAN
R.O.W. LINE (TYP.)
TRACT A +/-6.752 AC.
TRACT B +/-7.675 AC.
TRACT C +/- 2.045 AC.
10.00' D&U ESMT.
30' UTILITY ESMT. (CIMARRON HILLS SE F1)
30' UTILITY ESMT. (CIMARRON HILLS SE 1)
50' UTILITY ESMT. (CIMARRON HILLS SE F1)
30' ACCESS ESMT. REC. NO. 1001074
EX. PUB. 42" RCP STM. MAIN @ 0.50%
EX. PUB. 8" PVC WATER MAIN (CHEROKEE METRO DISTRICT)
EX. PUB. 60"x48" CSS BOX BASE STM. MH, STORM SYSTEM A CONNECTION TO METRO DISTRICT STORM SYSTEM PR. 36" HDPE IN 42" RCP IN (N) 48" RCP OUT (S)
EX. PUB. 5' DIA. SAN. SEWER MH RIM: 6287.63 8" PVC INV. IN: 6276.97 (E) 8" PVC INV. OUT: 6276.87 (W)
EX. PUB. 8" PVC SAN. SEWER MAIN (TYP.) (CHEROKEE METRO DISTRICT)
EX. PUB. 8" PVC WATER MAIN (CHEROKEE METRO DISTRICT)
EX. PUB. 18" PVC SAN. MAIN
EX. PUB. SAN. MH
EX. PUB. 5' CDOT TYPE R CURB INLET
EX. PUB. 24" RCP STM. MAIN
EX. PUB. 36" RCP STM. MAIN
EX. PUB. 60"x48" CSS BOX BASE STM. MH
EX. PUB. 12" PVC WATER MAIN
EX. PUB. 18" RCP STM. MAIN
EX. PUB. 60"x48" CSS BOX BASE STM. MH
EX. PUB. 36" RCP STM. MAIN
EX. PUB. 36" RCP STM. MAIN
EX. PUB. 18" PVC SAN. MAIN
EX. PUB. 18" PVC SAN. MAIN
EX. PUB. SAN. MH
EX. PUB. 5' CDOT TYPE R CURB INLET
EX. PUB. 18" PVC SAN. MAIN
EX. PUB. SAN. MH

DOMBROWSKI, COLIN, 4/28/2026 11:00 AM

HILLPOINTE APARTMENTS AT PETERSON
SITE DEVELOPMENT PLAN

PROPERTIES THAT LIE WITHIN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

AURORA CROSSROADS APARTMENTS
7010 - 7285 CROSSBUCK PT.
SCH. NO. 5408305001
PLAT NO. R14975
ZONING: CR RS-5000 CAD-O
LEGAL: LOT 1 CROSSROADS MIXED USE FIL. NO. 1
AREA: 12.7 AC.
USE: MULTI-UNITS (9 & UP)

FIRE PROTECTION NOTES:

1. HYDRANT COVER SHOWN ON THIS PLAN IS FOR FIRE FLOW REQUIREMENTS OF 2,750 GPM FOR FOUR HOURS FOR ALL 36-UNIT APARTMENT BUILDINGS, 2,250 GPM FOR FOUR HOURS FOR 24-UNIT APARTMENT BUILDINGS, AND 1,500 GPM FOR 2 HOURS FOR THE CLUBHOUSE AND FITNESS CENTER. ALL APARTMENT BUILDINGS ARE SPRINKLERED. THE MAIL ROOM, CLUBHOUSE, AND FITNESS CENTER ARE NOT SPRINKLERED.
2. EACH 36-UNIT APARTMENT BUILDING REQUIRES THREE (3) HYDRANTS IN VICINITY FOR HOSE LAY DISTANCES. EACH 24-UNIT APARTMENT BUILDING REQUIRES TWO (2) HYDRANTS IN VICINITY TO HOSE LAY DISTANCES. THE CLUBHOUSE AND FITNESS CENTER REQUIRE ONE (1) HYDRANT IN VICINITY.
3. HOSE LAY DISTANCES ARE 150 LF MAXIMUM PER CIMARRON HILLS FIRE DEPARTMENT STANDARDS.
4. HYDRANT-TO-TRUCK DISTANCES ARE A MAXIMUM OF 225 LF FOR APARTMENT BUILDING HYDRANTS AND 250 LF FOR THE CLUBHOUSE AND FITNESS CENTER.
5. ALL FIRE DEPARTMENT CONNECTIONS ARE WITHIN 100 LF OF A HYDRANT.
6. DEMONSTRATED ON THIS PLAN IS THE ACCESSIBILITY OF EACH DEFENSIBLE STRUCTURE BY AN EMERGENCY FIRE TRUCK APPARATUS.

FIRE TRUCK TURN TRACKING

TIRE ENVELOPE

VEHICLE ENVELOPE

BLDG. 1000 - 36 UNITS
BLDG. 2000 - 36 UNITS
BLDG. 3000 - 36 UNITS
BLDG. 4000 - 36 UNITS
BLDG. 5000 - 36 UNITS
BLDG. 6000 - 36 UNITS
BLDG. 7000 - 24 UNITS
BLDG. 8000 - 24 UNITS
BLDG. 9000 - 36 UNITS
DOG PARK (2,500 SF)
OPEN SPACE LANDSCAPED AREA
30' SANITARY SEWER ESMT., REC. NO. 207095288
10.0' D&U ESMT.
25.0' FRONT BLDG. SETBACK
7.0' CONC. SW
20' ESMT. AGREEMENT REC. NO. 222061001
MEADOWBROOK PARKWAY
PUBLIC 150' R.O.W. MINOR ARTERIAL
R225.00' REPRESENTING HYDRANT COVER AREA (TYP.)
MEADOWBROOK PARKWAY R.O.W. IMPROVEMENTS BY OTHERS, SEE CIMARRON HILLS SOUTHEAST FILING NO. 1 (SF2420) SHOWN AS EXISTING ON THIS PLAN
R.O.W. LINE (TYP.)
TRACT A
+/-6.752 AC.
15.0' SIDE BLDG. SETBACK
10.0' D&U ESMT.
225.0'
PROPERTY BOUNDARY (TYP.)
10' UTIL. ESMT. BK T-3, PG 112
E. PLATTE AVENUE (CO-24)
FR. PVT. HYDRANT (TYP.)
FIRE SERVICE CONNECTION (TYP.)
ESMT. FOR ELEC. GARAGE STRUCTURE (TYP.)
LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1
+/-14.092 AC.
FITNESS CENTER 1,224 GROSS SQ. FT.
CLUBHOUSE BUILDING 1,880 GROSS SQ. FT.
SWIMMING POOL
OUTDOOR KITCHEN AREA
FIRE PIT AREA
TRASH ENCL. 1,100 GROSS SQ. FT.
CENTERLINE OF ROADWAYS DRIVE AISLES (TYP.)
15.0' SIDE BLDG. SETBACK
10.0' D&U ESMT.
30' UTILITY ESMT. (CIMARRON HILLS SE F1)
PROPERTY BOUNDARY (TYP.)
EX. PUB. 8" PVC WATER MAIN (CHEROKEE METRO DISTRICT)
30' UTILITY ESMT. (CIMARRON HILLS SE 1)
TRACT B
+/-7.675 AC.
30' ACCESS ESMT. REC. NO. 1001074
EX. PUB. 8" PVC WATER MAIN (CHEROKEE METRO DISTRICT)
50' UTILITY ESMT. (CIMARRON HILLS SE F1)
PR. PVT. 6" PVC WATER MAIN (TYP.)
EX. FENCE (TYP.)
15.0' REAR BLDG. SETBACK
10.0' D&U ESMT.
TEN (10) UNIT GARAGE STRUCTURE INCL. 1 ADA (TYP.)
PICKLEBALL COURT 1,800 SF
15.0' REAR/SIDE BLDG. SETBACK
EX. DETENTION POND FOREBAYS (EPC NO. SF2420)
TRACT C
+/- 2.045 AC.
EX. FULL SPECTRUM DETENTION POND PER EPC NO. SF2420 (OWNED AND MAINTAINED BY METRO DISTRICT)

NORTH
0 50
25

PCD FILE NO.:

DRAWN BY: CVW	JOB DATE: 4/22/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"	
APPROVED: RDL	JOB NUMBER: 2502477		
CAD DATE: 4/28/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Fire Protection Plan			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

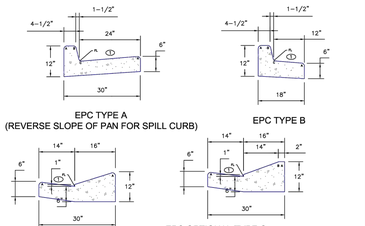
SITE DEVELOPMENT PLAN
FIRE PROTECTION PLAN

SHEET FP

5

HR GREEN Xrefs: 00-XC-ROW; 00-XC-DSGN; 01-XC-ROW; 01-XC-DSGN; 00-XV-ROW; 00-XV-SURVEY; 00-XV-UTIL; TB_24x36_2502477-SDP; 01-XC-UTIL; 00-XC-UTIL

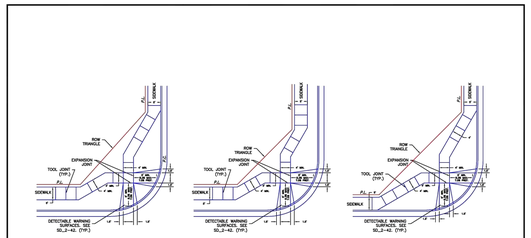
DOMBROWSKI, COLIN, 4/28/2026 11:00 AM



NOTE: SIDEWALK/CURB & GUTTER SHALL NOT BE POURED MONOLITHICALLY

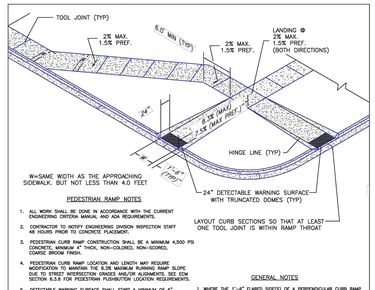
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6/23/20 DATE APPROVED: Joshua J. Palmer DEPARTMENT OF PUBLIC WORKS	Typical Curb and Gutter Details Standard Drawing	REVISION DATE: 7/18/23 FILE NAME: SD_2-20



SCALE: NOT TO SCALE

6/23/20 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Pedestrian Curb Ramp Detail Standard Drawing	REVISION DATE: 6/23/20 FILE NAME: SD_2-40



PEDESTRIAN RAMP NOTES

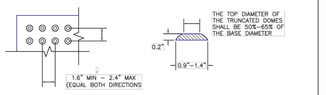
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
3. PEDESTRIAN CURB RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SCORED, COARSE BROOM FINISH.
4. PEDESTRIAN CURB RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 8.3% MAXIMUM RUNNING RAMP SLOPE DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS. SEE ECM SECTION 6.3.8 FOR PEDESTRIAN PUSHBUTTON LOCATION REQUIREMENTS.
5. DETECTABLE WARNING SURFACE SHALL START A MINIMUM OF 6" BUT NOT MORE THAN 8" FROM THE FLOWLINE OF THE CURB AT ANY POINT.
6. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST IRON (PATINA NATURAL FINISH) AND IN ACCORDANCE WITH ECM CHAPTER 6 AND SD_2-42. THERMOPLASTIC TRUNCATED DOMES AND PAVERS WILL NOT BE ACCEPTED.
7. THE DETECTABLE WARNING SURFACE SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
8. PEDESTRIAN CURB RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK/ 4' MINIMUM.
9. ALL PEDESTRIAN CURB RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL SUBJECT TO APPROVAL.
10. DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED PEDESTRIAN CURB RAMP AREAS AND LANDINGS ARE PROHIBITED.
11. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A RAMP SHALL NOT EXCEED 5%.

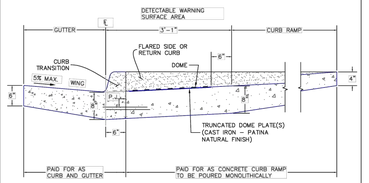
GENERAL NOTES

1. WHERE THE 1'-4" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA (PEDESTRIAN CIRCULATION PATH), THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
2. PEDESTRIAN WALKWAY (PEDESTRIAN ACCESS ROUTE) AND/OR LOCATION OF CURB RAMPS THAT DO NOT MEET CURRENT ADA REQUIREMENTS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUDING OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.

6/23/20 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Pedestrian Curb Ramp Detail Standard Drawing	REVISION DATE: 6/23/20 FILE NAME: SD_2-41

TRUNCATED DOME DETAILS

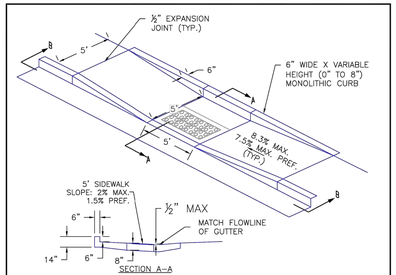




P.J.= PERMISSABLE JOINT WITH EPOXY-COATED DEFORMED NO. 4 BARS CONFORMING TO AASHTO M 284 AT 18 IN. SPACING

SIDE CROSS SECTION VIEW OF DETECTABLE WARNING SURFACE, CURB AND GUTTER

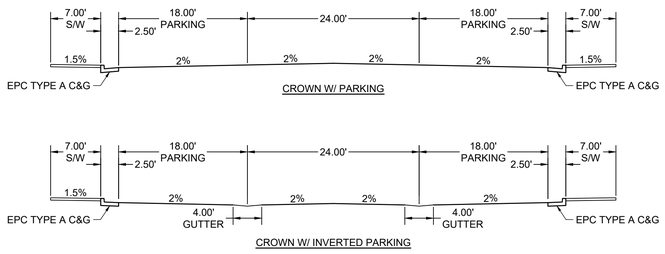
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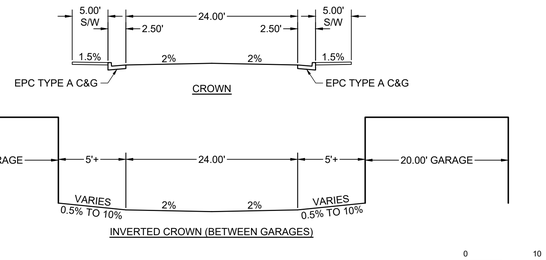


SCALE: NOT TO SCALE

6/23/20 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Parallel Pedestrian Curb Ramp Detail Standard Drawing	REVISION DATE: 6/23/20 FILE NAME: SD_2-50

TYPICAL ROADWAY SECTIONS:





NOTE: SECTIONS MAY BE A MIX OF TYPICAL SECTIONS, JOINED AT ROADWAY CENTERLINE

ALL ROADWAY SECTIONS ARE ONE OF THE FOLLOWING:

SECTION 1:
4" HMA (2 - 2" LIFTS) OVER 6" CLASS 6 AGGREGATE BASE COURSE OVER MIN. 12" COMPACTED SUBGRADE

SECTION 2.
3" PORTLAND CEMENT CONCRETE PAVEMENT OVER 6" CLASS 6 AGGREGATE BASE COURSE OVER MIN. 12" COMPACT SUBGRADE

SECTION 3.
ADA COMPLIANT CONCRETE PAVERS (UNI-LOCK OR EQUIV.) (TYP. 2.75" THICKNESS), OVER MANUFACTURER'S RECOMMENDED SECTION (SAND AND AGGREAGATE), OVER 6" CLASS 6 AGGREGATE BASE COURSE, OVER MIN. 12" COMPATED SUB-GRADE

PCD FILE NO.: _____

DRAWN BY: CMD	JOB DATE: 4/22/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: RDL	JOB NUMBER: 2502477	0 1"	
CAD DATE: 4/28/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Details			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
SITE DETAILS

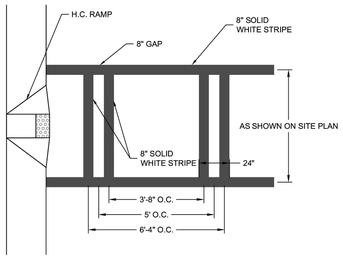
SHEET DT

6

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HR GREEN Xrefs: TB_24x36_2502477-SDP

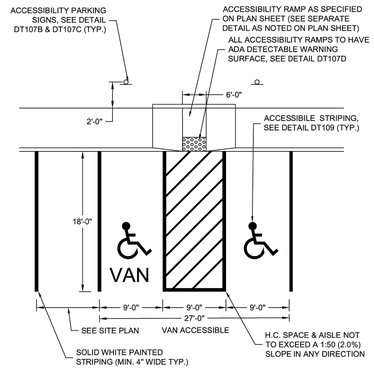
DOMBROWSKI, COLIN, 4/28/2026 11:00 AM



NOTES:

1. DO NOT APPLY PAINT TO AREAS OF PAVEMENT WHEN THE SURFACE IS MOIST OR COVERED WITH FOREIGN MATTER OR AIR TEMPERATURE IN THE SHADE IS BELOW 40 °F (5 °C).
2. APPLY TRAFFIC STRIPE PAINT BY MACHINE.
3. WITHIN ROW ALL PEDESTRIAN CROSSWALKS SHALL MEET DOT STANDARDS

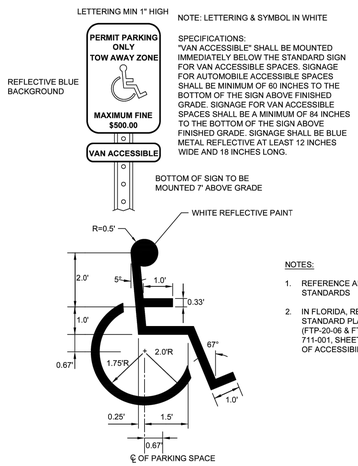
SCALE: NTS	DETAIL NAME: PRIVATE CROSSWALK STRIPING	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-200



NOTES:

1. FOR FLORIDA, REFERENCE FDOT STANDARD PLANS 711-001, SHEET 11 FOR ADA PARKING SIZE & STRIPING REQUIREMENTS.
2. ACCESSIBILITY SIGNS MAY NOT BE INSTALLED WITHIN THE LIMITS OF A ACCESSIBILITY RAMP OR SIDEWALK UNLESS OTHERWISE SPECIFIED.
3. CONTRACTOR MAY ELECT TO HAVE SIGN PLACED DIRECTLY ON BUILDING ONLY IF APPROVED BY INSPECTOR.
4. ACCESSIBLE SPACE AND AISLE NOT TO EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION.
5. TO BE PROVIDED AT A RATE OF (2) PER APARTMENT BUILDING

SCALE: NTS	DETAIL NAME: ADA PARKING 9X9X9	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-204B



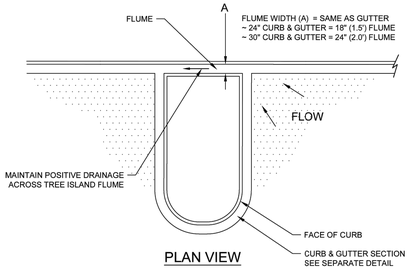
NOTE: LETTERING & SYMBOL IN WHITE

SPECIFICATIONS:
"VAN ACCESSIBLE" SHALL BE MOUNTED IMMEDIATELY BELOW THE STANDARD SIGN FOR VAN ACCESSIBLE SPACES. SIGNAGE FOR AUTOMOBILE ACCESSIBLE SPACES SHALL BE MINIMUM OF 60 INCHES TO THE BOTTOM OF THE SIGN ABOVE FINISHED GRADE. SIGNAGE FOR VAN ACCESSIBLE SPACES SHALL BE A MINIMUM OF 84 INCHES TO THE BOTTOM OF THE SIGN ABOVE FINISHED GRADE. SIGNAGE SHALL BE BLUE METAL REFLECTIVE AT LEAST 12 INCHES WIDE AND 18 INCHES LONG.

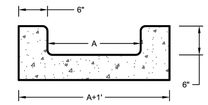
NOTES:

1. REFERENCE AHJ FOR APPLICABLE STANDARDS
2. IN FLORIDA, REFERENCE FDOT STANDARD PLAN 700-102, SHEET 4 (FTP-20-06 & FTP-22-06) FOR SIGNAGE & 711-001, SHEET 11 FOR PAINTED SYMBOL OF ACCESSIBILITY

SCALE: NTS	DETAIL NAME: ADA MARKING & SIGNAGE	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-204D



PLAN VIEW

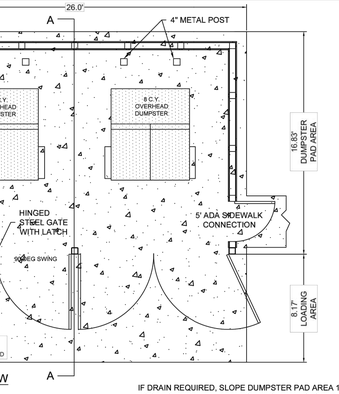


SECTION VIEW

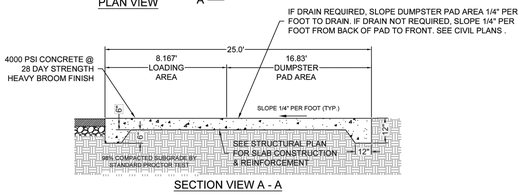
NOTES:

1. FLUME TO BE CONSTRUCTED WITH CLASS A, 3000 PSI CONCRETE.
2. REFER TO GRADING PLAN SPOTS FOR FLUME LONGITUDINAL SLOPE. AT MINIMUM CONTRACTOR SHALL MAINTAIN POSITIVE SLOPE FOR PROPER DRAINAGE.
3. FLUME TO BE BROOM FINISHED. FLUME TO HAVE 1/4" WIDE BY 1/2" DEEP CONTRACTION JOINT EVERY 10 FEET.

SCALE: NTS	DETAIL NAME: TREE ISLAND FLUME	
DATE: 07/01/2025		
# / REVISION DATE: 1	HILLPOINTE	DETAIL NO: HP-205

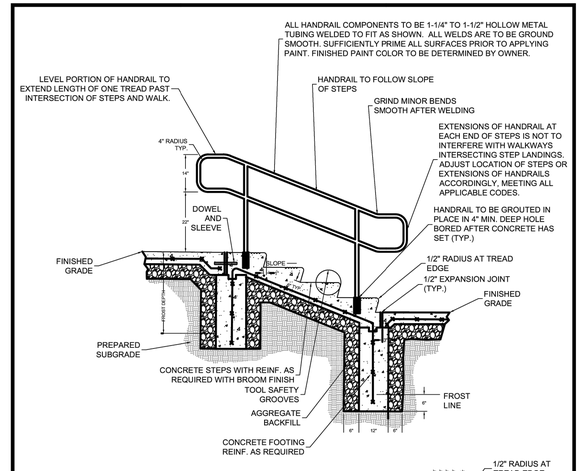


PLAN VIEW



SECTION VIEW A - A

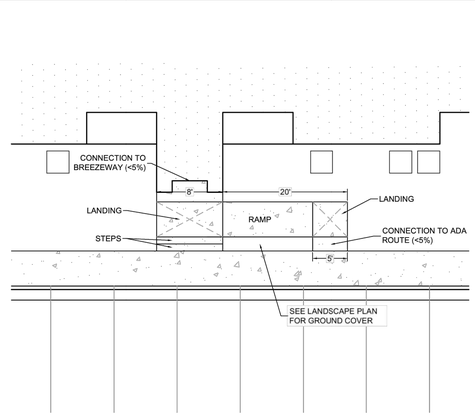
SCALE: NTS	DETAIL NAME: DUMPSTER PAD	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-206



NOTES

1. DETAIL SHOWS CONSTRUCTION TECHNIQUES ONLY. NUMBER OF RISERS REQUIRED TO BE DETERMINED BY CONTRACTOR ON SITE.
2. ALL TREADS TO BE OF UNIFORM DEPTH, BEING A MINIMUM OF 12" DEEP.
3. ALL RISERS TO BE OF UNIFORM HEIGHT, RANGING FROM 5" TO 7" HIGH.
4. HANDRAIL TO BE INSTALLED ON EACH SIDE OF STEPS.
5. REFERENCE 9031-L, DETAIL G ON SHEET 23 FOR COPING DETAILS.
6. COPING SHALL EXTEND 6" BELOW FINISHED GRADE

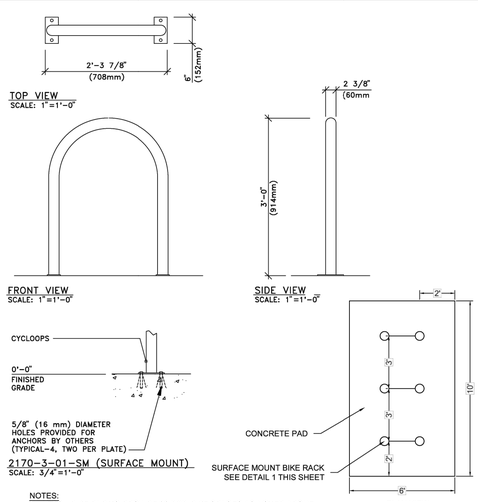
SCALE: NTS	DETAIL NAME: STEPS + HANDRAIL DETAIL	
DATE: 07/01/2025		
# / REVISION DATE: 1	HILLPOINTE	DETAIL NO: HP-207



NOTES

1. STEPS SHALL BE INSTALLED PER STEPS & HANDRAIL DETAIL
2. LANDINGS MUST MEET ADA STANDARDS. 5'X5' LANDING WITH MAX 2% SLOPE IN ANY DIRECTION
3. RAMPS:
   - 3.1. UNDER 5% IDEAL
   - 3.2. OVER 5% - HANDRAIL REQUIRED
   - 3.3. OVER 8.33% INCREASE LENGTH OF RAMP
   - 3.4. SIGNIFICANTLY UNDER 5% - REDUCE LENGTH

SCALE: NTS	DETAIL NAME: BREEZEWAY RAMPS	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-208



NOTES:

1. EACH BIKE PAD TO PROVIDE (6) 6'X2' BIKE SPACES AS NOTED ABOVE
2. CONCRETE TO BE PLACED 4" THICK (EXCEPT WHERE OTHERWISE SPECIFIED) AND FINISHED WITH TAMPS, WOOD FLOATS AND STIFF-BRISTLE BROOMS.
3. MAXIMUM RUNNING SLOPE NOT TO EXCEED 8.33%
4. MAXIMUM CROSS-SLOPE NOT TO EXCEED 2.00%

SCALE: NTS	DETAIL NAME: BIKE RACK	
DATE: 07/01/2025		
# / REVISION DATE: 1	HILLPOINTE	DETAIL NO: HP-212

PCD FILE NO.:

HR GREEN Xrefs: TB_24x36_2502477-SDP

DRAWN BY: CMD | JOB DATE: 4/22/2026
APPROVED: RDL | JOB NUMBER: 2502477
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

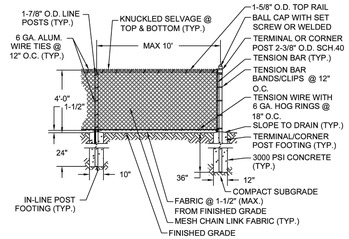
HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
SITE DETAILS

SHEET DT 7

DOMBROWSKI, COLIN, 4/28/2026 11:00 AM

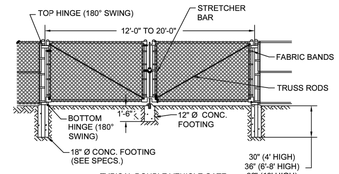


FENCE HEIGHT	USE
4'	POND / DOG PARK / RETAINING WALL
6'	-
8'	PICKLE BALL COURT

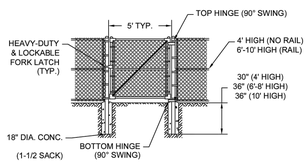
NOTES:

1. FABRIC SHALL BE 9 GA, 2" WEAVE AND WITH TOP AND BOTTOM SELVAGES KNUCKLED.
2. ALL CONCRETE FOOTINGS AROUND POSTS AT GROUND LINE SHALL BE MOUNDED & SLOPED FOR POSITIVE DRAINAGE.
3. FRAMING MEMBERS (INCLUDING POST, RAILS, BRACES, GATE FRAMES) SHALL BE TYPE 1 PIPE, SCHEDULE 40. POSTS AND RAILS SHALL HAVE CAPS TO EXCLUDE MOISTURE; RAILS SHALL BE ATTACHED TO POSTS W/ MALLEABLE RAIL END CAPS W/ 7/8" BEVELED STEEL BRACE BAND.
4. ALL MATERIALS (POSTS, RAILS, CAPS, TENSION BARS, BANDS, FABRIC, ETC.) SHALL HAVE AN OUTER PVC COATING IN ACCORDANCE WITH ASTM F 1043, 7. COLOR TO BE BLACK.

SCALE: NTS	DETAIL NAME: CHAIN LINK FENCE	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-213A



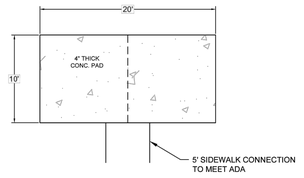
TYPICAL DOUBLE VEHICLE GATE



TYPICAL PEDESTRIAN GATE

NOTES:
1. FENCE FABRIC SHALL BE SECURED TO GATE FRAMES WITH KNUCKLED SELVAGE ALONG ALL EDGES FOR ALL TYPES CHAIN LINK FENCE INSTALLATIONS.
2. ALL CONCRETE FOOTINGS AROUND POSTS AT GROUND LINE SHALL BE MOUNDED & SLOPED FOR POSITIVE DRAINAGE.
3. GATES TO BE PROVIDED WITH A LOCKABLE LATCH & LOCK. KEY COPIES TO PROVIDED TO THE PUBLIC WORKS DEPARTMENT FOR STORMWATER MANAGEMENT FACILITY INSPECTION AND MAINTENANCE.

SCALE: NTS	DETAIL NAME: CHAIN LINK GATE	
DATE: 07/01/2025		
# / REVISION DATE	HILLPOINTE	DETAIL NO: HP-213B

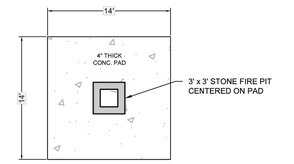


PLAN VIEW

NOTES:

1. OUTDOOR KITCHEN SHALL BE LOCATED NEAR THE CLUBHOUSE.
2. KITCHEN PAD MUST BE A MINIMUM OF 15' FROM ANY BUILDING STRUCTURE
3. KITCHEN MUST BE LOCATED ON AN ACCESSIBLE ROUTE
4. THE 5' SIDEWALK CONNECTION MAY BE ADJUSTED AS NEEDED.
5. GRILL WITH COUNTER IS TYPICALLY CENTERED ALONG THE SHORT SIDE (EITHER SIDE)
6. BLACK COATED, METAL PERGOLA TO BE PROVIDED OVER PAD.

SCALE: NTS	DETAIL NAME: AMENITY - OUTDOOR KITCHEN	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-215

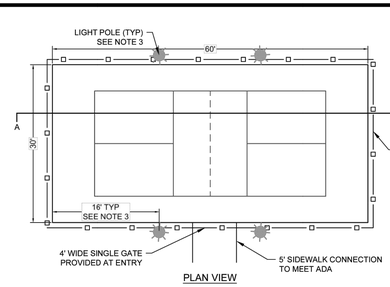


PLAN VIEW

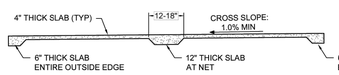
NOTES:

1. OUTDOOR FIRE PIT SHALL BE LOCATED IN AN OPEN AREA NEAR THE CLUBHOUSE.
2. CENTER OF FIRE PIT MUST BE A MINIMUM OF 15' FROM ANY BUILDING STRUCTURE. 15' FROM PAD PREFERRED.
3. NO SIDEWALK TO THE PIT AREA IS NECESSARY PER HILLPOINTE STANDARDS

SCALE: NTS	DETAIL NAME: AMENITY - OUTDOOR FIRE PIT	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-216



PLAN VIEW

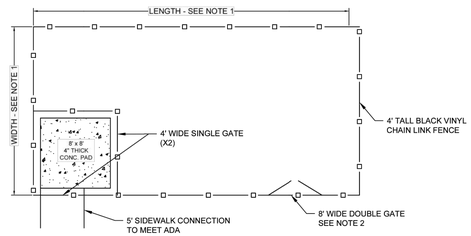


SECTION A-A

NOTES:

1. PICKLEBALL COURT IS A 30'x60' CONC. PAD WITH A 20'x44' PLAY AREA.
2. A 5' SIDEWALK CONNECTION MUST BE PROVIDED ON AN ACCESSIBLE ROUTE AND CAN CONNECT ANYWHERE ALONG THE PAD.
3. A MINIMUM OF 4 LIGHT POLES SHALL BE PROVIDED. REFER TO LIGHTING PLAN FOR FINAL LOCATION.
4. COURTS ARE TYPICALLY PLACE NEAR THE CLUBHOUSE AREA, BUT IS NOT REQUIRED.
5. COURTS TYPICALLY PLACED RUNNING NORTH/SOUTH DUE TO THE SUN BUT SHALL BE ROTATED BASED ON SITE CONSTRAINTS.
6. COURT TO BE SLOPED 1% ANY DIRECTION. SLOPE MUST BE CONSISTENT ACROSS COURT.

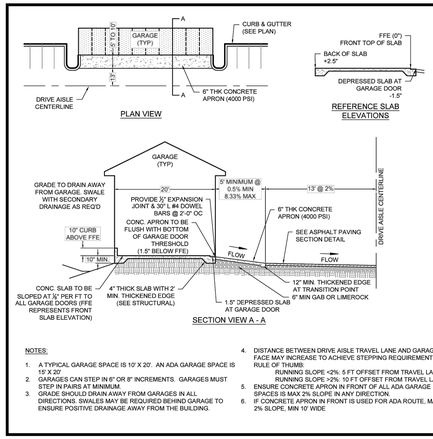
SCALE: NTS	DETAIL NAME: AMENITY - PICKLEBALL COURT	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-217



NOTES:

1. TYPICAL DIMENSIONS:
   50' x 50'
   50' x 75'
2. 8' WIDE DOUBLE GATE IS FOR MOWER ACCESS & SHALL BE LOCATED ADJACENT TO A TRAVERSABLE GRADE

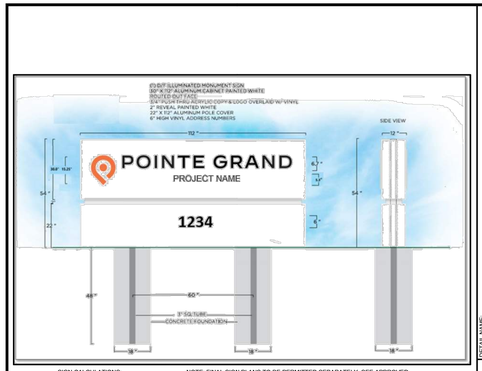
SCALE: NTS	DETAIL NAME: AMENITY - DOG PARK	
DATE: 07/01/2025		
# / REVISION DATE	HILLPOINTE	DETAIL NO: HP-218



NOTES:

1. A TYPICAL GARAGE SPACE IS 10' X 20'. AN ADA GARAGE SPACE IS 15' X 20'.
2. GARAGES CAN STEP IN 6" OR 8" INCREMENTS. GARAGES MUST STEP IN PAIRS AT MINIMUM.
3. GRADE SHOULD DRAIN AWAY FROM GARAGES IN ALL DIRECTIONS. SWALES MAY BE REQUIRED BEHIND GARAGE TO ENSURE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
4. DISTANCE BETWEEN DRIVE AISLE TRAVEL LANE AND GARAGE FACE MAY INCREASE TO ACHIEVE STEPPING REQUIREMENTS. RULE OF THUMB:
   RUNNING SLOPE <2%: 5 FT OFFSET FROM TRAVEL LANE
   RUNNING SLOPE >2%: 10 FT OFFSET FROM TRAVEL LANE
5. ENSURE CONCRETE APRON IN FRONT OF ALL ADA GARAGE SPACES IS MAX 2% SLOPE IN ANY DIRECTION
6. IF CONCRETE APRON IN FRONT IS USED FOR ADA ROUTE, MAX 2% SLOPE, MIN 10' WIDE

SCALE: NTS	DETAIL NAME: GARAGE	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-210



SIGN CALCULATIONS:
SIGN WIDTH: 112" (9' 4")
SIGN HEIGHT: 30" (2' 6")
TOTAL SIGN AREA: 23.33 SF

TOTAL SIGN HEIGHT: 54" (4' 6")

NOTE: FINAL SIGN PLANS TO BE PERMITTED SEPARATELY. SEE APPROVED SIGN PLANS FOR REFERENCE PRIOR TO START OF CONSTRUCTION

SCALE: NTS	DETAIL NAME: MONUMENT SIGN	
DATE: 07/01/2025		
# / REVISION DATE: 1 — 09/22/2025	HILLPOINTE	DETAIL NO: HP-211

HR GREEN Xrefs: TB_24x36_2502477-SDP

DRAWN BY: CMD	JOB DATE: 4/22/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1"	
APPROVED: RDL	JOB NUMBER: 2502477		
CAD DATE: 4/28/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Details			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

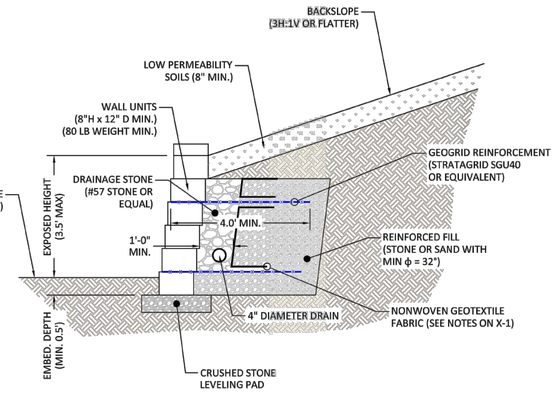
HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
SITE DETAILS

PCD FILE NO.:

SHEET DT

DOMBROWSKI, COLIN, 4/28/2026 11:00 AM



DETAIL NAME: TYPICAL BLOCK M.S.E WALL SECTION - MAX. HEIGHT 4 FT

DETAIL NO: HP-214A

HILLPOINTE

SCALE: NTS

DATE: 07/01/2025

#	REVISION DATE
1	
2	
3	
4	

GENERAL NOTES

1. THE WALL CONTRACTOR AND/OR CEI (CONSTRUCTION ENGINEER INSPECTION) STAFF SHALL VERIFY ALL CONDITIONS, GRADES, DIMENSIONS, AND TOPOGRAPHIC INFORMATION PRIOR TO CONSTRUCTION. IF THE WALL CONTRACTOR AND/OR CEI STAFF DISCOVERS ANY ERRORS, OMISSIONS, OR DISCREPANCIES, THEY SHALL CONTACT THE DESIGN PROFESSIONAL WHO WILL THEN ISSUE INSTRUCTIONS AS TO HOW TO PROCEED.
2. THE CONTRACTOR/OWNER SHALL BE RESPONSIBLE FOR OBSERVING ALL APPLICABLE SAFETY LAWS AND REGULATIONS, INCLUDING BY NOT LIMITED TO SHORING, GUARDRAILS AND/OR FENCING, TEMPORARY EXCAVATION, LOCAL BUILDING CODES AND REGULATIONS, ETC.
3. EXCAVATION FOR CURB AND GUTTER, FENCING, GUARDRAILS, UTILITIES, AND FOUNDATIONS SHALL BE COORDINATED WITH WALL CONSTRUCTION AND SHALL BE COMPLETED WITHOUT DAMAGE TO THE WALL SYSTEM.
4. ALL WALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AS WELL AS APPLICABLE AMERICAN CONCRETE INSTITUTE (ACI) STANDARDS.

WALL MATERIALS

1. CONCRETE: $f'c$ = 3,000 PSI
   SLUMP = 4±1 INCHES (BEFORE ADDITION OF WATER REDUCING ADMIXTURES)
   AIR CONTENT = 5±1.5 PERCENT (AIR ENTRAINMENT IS NOT REQUIRED IN CONCRETE NOT EXPOSED)
2. REINFORCING STEEL: f_y = 60 KSI (DEFORMED BARS)
   FIELD BENDING OF BARS IS PERMITTED PROVIDED HEATING OF THE BARS IS NOT REQUIRED.
   WELDING OF REINFORCING STEEL IS NOT PERMITTED.
3. SURCHARGE AND LOADING: THE RETAINING WALLS WERE DESIGNED WITH A FLAT BACKSLOPE, FLAT TOE SLOPE AND 100 PSF LIVE LOAD SURCHARGE.
   IF DISCREPANCIES ARE FOUND TO EXIST BETWEEN THE FIELD CONDITIONS AND THE DESIGN CONDITIONS, THE DESIGN ENGINEER SHALL BE NOTIFIED TO DETERMINE IF DESIGN MODIFICATIONS ARE REQUIRED PRIOR TO BEGINNING WALL CONSTRUCTION.
4. SOIL PROPERTIES:

SOIL	EFFECTIVE FRICTION	UNIT WEIGHT	COHESION	NOTES
RETAINED	PHI (ϕ') = 28 DEGREES	GAMMA (γ) = 125 PCF	C = 0 PSF	ALL WALLS
FOUNDATION	PHI (ϕ') = 28 DEGREES	GAMMA (γ) = 125 PCF	C = 0 PSF	ALL WALLS

5. ALLOWABLE BEARING PRESSURE: 1,500 PSF (TO BE EVALUATED PRIOR TO CONSTRUCTION BY TESTING COMPANY)

CONCRETE

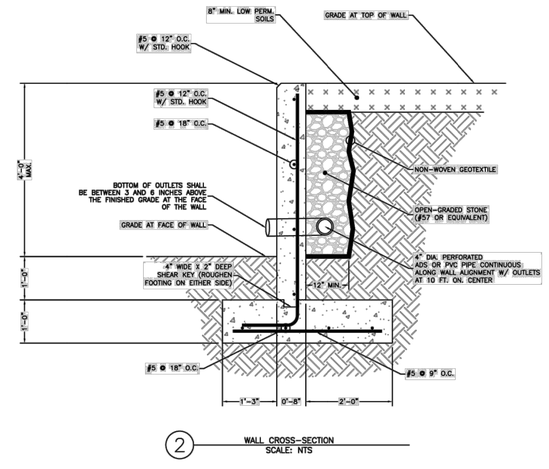
1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 AND ACI 301 AS WELL AS ALL LOCAL, STATE, AND FEDERAL CODES. IN THE EVENT OF CONFLICTING INFORMATION, THE MORE STRINGENT REQUIREMENT SHALL CONTROL.
2. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301 (FINISHES) ACI 117 (TOLERANCES), ACI 347 (FORMWORK), ACI 305 (HOT WEATHER CONCRETING), AND ACI 306 (COLD WEATHER CONCRETING).
3. ALL CONCRETE SHALL BE PROPORTIONED FOR A MAXIMUM WATER/CEMENTITIOUS MATERIALS RATIO OF 0.45 AS WELL AS THE REQUIREMENTS LISTED ABOVE. IF WATER REDUCING ADMIXTURES ARE USED, THE MAXIMUM SLUMP AFTER THE ADDITION OF HIGH RANGE WATER REDUCER SHALL BE 8 INCHES.
4. ALL CONCRETE SHALL BE CURED USING ONE OF THE METHODS IN ACI 301 FOR A MINIMUM OF 7 DAYS.
5. BAR SPLICES SHALL BE CLASS B TENSION LAP SPLICES IN ACCORDANCE WITH ACI AND AASHTO STANDARDS.
6. ALL HOOKS SHALL BE STANDARD HOOKS (90 DEGREES) PER ACI 318.
7. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF 7 DAYS PRIOR TO STEEL FABRICATION.

DRAINAGE PROVISIONS

1. DRAINAGE PROVISIONS SHALL INCLUDE A 4" PERFORATED ADS OR PVC PIPE, 4" DRAIN OUTLETS THROUGH THE WALL FACE, AND OPEN-GRADED STONE.
2. THE 4" PERFORATED PIPE SHALL BE CONTINUOUS ALONG THE ENTIRE LENGTH OF THE WALL. THE PERFORATED PIPE SHALL BE CONNECTED TO 4" OUTLETS THROUGH THE WALL FACE WITH A MAXIMUM CENTER TO CENTER SPACING OF NOT MORE THAN 20 FEET , AT ALL LOW POINTS IN THE WALL AND A MINIMUM OF 2 OUTLETS PER WALL. THE PERFORATED PIPE SHALL ALSO DAYLIGHT AT EACH END OF THE WALL. THE DRAIN OUTLET PIPES SHALL BE SLOPED AT 1% TOWARD THE WALL FACE.
3. A DRAINAGE POCKET COMPRISED OF OPEN-GRADED STONE SHALL BE PLACED BEHIND THE WALL AND ENCAPSULATE THE PERFORATED PIPE. THE DRAINAGE POCKET DIMENSIONS SHALL BE AS SHOWN IN THE DETAILS IN THIS SHEET.
4. NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE DRAINAGE STONE AND THE RETAINED SOILS.
5. AT THE END OF EACH WORK DAY, THE GRADES ABOVE AND BELOW THE WALL SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE CONSTRUCTION AREA. UNDER NO CIRCUMSTANCES SHALL SURFACE RUNOFF BE PERMITTED TO ENTER THE CONSTRUCTION AREA.
6. THE GRADING CONTRACTOR SHALL PROVIDE MEANS AND METHODS TO PREVENT SURFACE RUNOFF FROM FLOWING OVER THE FACE OF THE WALL BOTH DURING AND AFTER CONSTRUCTION.
7. EROSION PROTECTION SHALL BE PROVIDED ON THE GROUND SURFACE BOTH ABOVE AND BELOW THE WALL DURING AND AFTER CONSTRUCTION.

TABLE 1 – WALL JOINT SPACING REQUIREMENTS

CONSTRUCTION	CONTRACTION	EXPANSION
40 FEET MAX	WALL HEIGHT < 6 FEET: 3x WALL HEIGHT MAX. WALL HEIGHT > 6 FEET: LESS THAN OR EQUAL TO WALL HEIGHT 25 FEET MAX JOINT SPACING WITHIN 6 FEET OF CORNERS	EVERY 4TH CONTRACTION JOINT



2 WALL CROSS-SECTION
SCALE: NTS

DETAIL NAME: TYPICAL CONCRETE M.S.E WALL SECTION - MAX HEIGHT 4 FT

DETAIL NO: HP-214B

HILLPOINTE

SCALE: NTS

DATE: 09/22/2025

#	REVISION DATE
1	
2	
3	
4	

PCD FILE NO.:

DRAWN BY: CMD JOB DATE: 4/22/2026
APPROVED: RDL JOB NUMBER: 2502477
CAD DATE: 4/28/2026
CAD FILE: J:\2025\2502477\CAD\Dwgs\C\SDP\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

HILLPOINTE APARTMENTS AT PETERSON
HILLPOINTE, LLC.
COLORADO SPRINGS, EL PASO COUNTY, COLORADO

SITE DEVELOPMENT PLAN
SITE DETAILS

SHEET DT 9

HR GREEN Xrefs: TB_24x36_2502477-SDP

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Y - Satisfies criteria

N - Needs to be addressed

EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: PPR TBD
PPR2613

		Applicant	EPC
Part I. Stormwater Management Plan In the "Applicant" column specify the page number for each item.			
1	List the following individuals by title and name and provide contact information for each on the Cover or Title page: Property Owner, Operator/Contractor, SWMP Preparer, and Qualified Stormwater Manager.	X	Y
2	Provide a Table of Contents.	X	Y
	Site Description		
3	Describe the site location, including nearest street/crossroads.	X	Y
4	Describe the nature of the construction activity at the site, including if the activity is related to a public emergency, if applicable.	X	Y
5	Provide a proposed schedule of major construction activities (e.g. clearing and grubbing, grading, utilities, paving, vertical construction, final stabilization, etc.) and the planned implementation of control measures (e.g. silt fence, vehicle tracking control, temporary sediment basin, inlet protection, seeding & mulching, etc.) associated with each major construction activity. Include the anticipated starting and completion dates for each major construction activity, including the anticipated date in which final stabilization will be achieved. See Mile High Flood District's Construction Phasing/Sequencing detail (Table CP-1 in detail SM-1) for guidance.	X	Y
6	State the total acreage of the site and the acreage anticipated to be disturbed by clearing, excavation, grading, and any other construction activities.	X	N
7	Provide a summary of any existing data and sources used in the development of the construction site plans or SWMP which describe the soil types located in the site area and include the erodibility of those soil types.	X	N
8	Describe the current percent cover from native vegetation on the site. If the site is currently disturbed or developed, provide the percent cover from native vegetation in a similar, local undisturbed area or adequate reference area. Include the method for determining the percent cover in the description.	X	N
9	Describe any anticipated allowable non-stormwater discharges at the site, including those being discharged under CDPS General Permit COR400000 Part I.A.1.b (discharges from uncontaminated springs; discharges of concrete and masonry washout water to the ground; discharges of landscape irrigation return flow; discharges from diversions of state waters within the permitted site), a separate CDPS Permit (e.g. a CDPS Dewatering General Permit), or a Water Quality Control Division low risk discharge guidance document (e.g. uncontaminated groundwater to land), and the applicable control measures installed.	X	Y
10	Describe the general flow direction and where or how stormwater discharges leave the site. Description must identify the immediate conveyance or area receiving the discharge and the name(s) of the state water(s) receiving the discharge, if different from the immediate conveyance or area. If the discharge is to a municipal separate storm sewer system (MS4), include the name of the entity owning the MS4, the location(s) of the discharge, and the receiving state water(s).	X	Y
11	Describe all streams located within the construction site boundary.	X	Y

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EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: PPR TBD

		Applicant	EPC
Potential Pollution Sources and Control Measures			
12	Describe all potential sources of pollution. At a minimum, the SWMP must identify the following pollutant sources which relate to every construction site: • Disturbed and stored soils • Vehicle tracking of sediment • On-site waste management practices Additional potential sources of pollution may include but is not limited to: management of contaminated soils; loading and unloading operations; outdoor storage activities; vehicle and equipment maintenance and fueling; significant dust or particulate generating processes; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, etc.; concrete or masonry truck/equipment washing and washout waste; dedicated asphalt batch plants, concrete batch plants, and masonry mixing stations; non-industrial waste sources such as worker trash and portable toilets; and reclaimed water approved for use in construction dust suppression.	X	Y
13	Describe the materials handling procedures (i.e. control measures) implemented to minimize impacts from handling significant materials. Handling procedures may include but are not limited to control measures for pollutants and activities such as exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash, and equipment maintenance or fueling procedures.	X	Y
14	Provide a Spill Prevention and Response Plan which includes procedures for preventing, responding to, and reporting spills and leaks that may occur on the construction site.	X	Y
15	Describe all structural control measures (e.g. silt fence, erosion control logs, inlet protection, vehicle tracking pads, etc.) anticipated to be used on site.	X	Y
16	Describe all non-structural control measures (e.g. seeding, mulching, protection of existing vegetation, street sweeping, waste management, etc.) anticipated to be used on site.	X	Y
17	If any permanent or construction control measures located outside of the permit area which are owned or operated by another entity (i.e. control measures that are not under the direct control of the permittee) will be utilized by the permittee for compliance with the ESQCP, a documented Use Agreement between the permittee and the owner or operator of the control measure must be included in the SWMP. The SWMP must include all information required of and relevant to any off-site control measures including location, installation and design specifications, and maintenance requirements and responsibility of the control measure(s).	X	Y
18	Provide a GEC Plan. Reference El Paso County Grading and Erosion Control (GEC) Plan Checklist. Although the GEC Plan is reviewed as a separate document, it is a part of the SWMP and should be attached as an appendix to the SWMP narrative document prior to the start of construction.	X	Y

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STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: PPR TBD

		Applicant	EPC
Final Stabilization and Long-Term Stormwater Management			
19	Describe all final stabilization methods (e.g. permanent pavement or concrete, vegetative cover, hardscape, etc.) which will be used to achieve final stabilization of any disturbed areas throughout the site. Describe and locate any temporary control measures to be utilized to prevent erosion while awaiting final stabilization.	X	Y
20	Specific to vegetative cover: describe how the permittee will establish final stabilization through vegetative cover (e.g. seed mix and application method, soil preparation and amendments, soil stabilization methods, etc.); a reference to specifications and/or the site's Landscape Plan may fulfill this requirement, if applicable. Include a statement that in areas where final stabilization will be achieved using vegetative cover, vegetative must be evenly distributed perennial vegetation and coverage will be, at a minimum, equal to 70% of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site.	X	Y
21	Description and location of all permanent control measures (e.g. extended detention basins, rain gardens, sand filter basins, runoff reduction etc.) that will be used to control pollutants in stormwater discharges after construction is complete.	X	Y
Inspections and Recordkeeping			
22	Describe the procedures that will be used to amend or update the SWMP and to maintain the record of changes. SWMP amendments or updates must include a notation in the SWMP identifying the date and description of the change. Methods for notation may include notations on the site map (i.e. GEC Plan), a log of changes, redline changes in the SWMP, or other measures.	X	Y
23	Describe the Permit Holder's self-inspection procedures, including the inspection frequency, that will be used to ensure control measures are in effective operational condition, determine if new or modified control measures are needed, and identify all areas of non-compliance with the Stormwater Permit.	X	Y
24	Describe the recordkeeping procedures to include the Qualified Stormwater Manager's signature on self-inspection reports and the location of SWMP records on-site. A copy of the SWMP (to include the current site map [i.e. GEC Plan] and self-inspection reports) may be kept electronically if the SWMP is immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be.	X	Y
Appendices Cover Sheets			
A	GEC Plan (see Item 18 above)	X	Y
B	Erosion and Stormwater Quality Control (ESQCP) Stormwater Permit Form (ESQCP) (signed)	X	Y
C	CDPS General Permit COR400000 Certification and copy of the General Permit (if applicable)	X	
D	Other CDPS Permit Certifications (if applicable)		
E	CDPHE Low-Risk Discharge Guidance Documents (if applicable)	X	
F	US Army Corps of Engineers Section 404 Permit (if applicable)		
G	Use Agreement (see Item 17 above) (if applicable)		
F	Self-Inspection Form	X	Y

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EL PASO COUNTY
STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: PPR TBD

Part II. Applicant Comments (as needed)

HRGreen

HRGREEN.COM

Hillpointe Apartments at Peterson Road
Stormwater Management Plan (SWMP)

March 2026

HR Green Project No: 2502477

El Paso County No. PPR-XXX

PPR2613

Prepared For (Applicant/Owner):

Hillpointe, LLC.

3773 Cherry Creek Drdive North

Suite #801 East Tower

Denver, CO 80209

Contact: Mark Foster

mfoster@hillpointe.com

Prepared By:

HR Green Development, LLC

Contact: Richie Lyon, P.E.

1975 Research Parkway, Suite 230

Colorado Springs, CO 80924

Richie.Lyon@hrgreen.com

Qualified Stormwater Manager:

[TBD Name]

[TBD Company Name]

[TBD Company Address]

Contractor/Operator:

[TBD Name]

[TBD Company Name]

[TBD Company Address]

Table of Contents

Table of Contents 1
Engineer's Statement 3
I. Site Location & Description 4
II. Construction Phasing 6
III. Pre-Development Conditions and Soils 7
IV. Description of Potential Pollutants 8
V. Self-Inspections 8
VI. Materials Handling 10
VII. Spill Prevention & Response Plan 11
VIII. Implementation of Control Measures 12
IX. Final Stabilization & Long-Term Stormwater Management Plan 13
X. References 14

Appendices

A. Vicinity Map & NRCS Soil Survey & FEMA Map
B. GEC Plans
C. Calculations
D. El Paso County Construction Control Measures
E. Spill Prevention Plan
F. SWMP Report Revision Log
G. Qualified Stormwater Manager Certifications

▷ PREPARING ENGINEER:

Name: Richie Lyon, P.E.

Company: HR Green Development, LLC

Title: Project Manager

Phone Number: (719) 318-0871

Address: 1975 Research Pkwy, Suite 160 Colorado Springs, CO 80920

▷ PERMITEE:

Name: Mark Foster

Company: Hillpointe, LLC.

Title: Owner/Developer

Phone Number: (303) 910-5470

Address: 3773 Cherry Creek Drive North, Suite #801 East Tower Denver, CO 80209

▷ DESIGNATED STORMWATER MANAGER

Contact:

Company:

Title:

Phone Number:

Address:

▷ GEC ADMINISTRATOR:

Contact:

Company:

Title:

Phone Number:

Address:

Engineer's Statement

The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans.

Name: Richard D. Lyon, P.E. Date: _____

Phone Number: 719-394-2435

Seal

I. Site Location & Description

Location

The Hillpointe Apartments at Peterson, legally described as Lot 1 Cimarron Hills Southeast Mixed Use Filing No. 1, totals 14.09 acres and referred to as 'the site' herein, is a portion of the west half of the southwest quarter of Section 8, Township 14 South, Range 65 West of the 6th P.M., El Paso County, Colorado. The subdivision is described in the *Cimmaron Hills Southeast Mixed Use Filing No. 1 Final Drainage Report* prepared by Matrix Design Group dated September 2025. The site is bound to the north by the 80' wide public right-of-way of Meadowbrook Parkway and across the roadway is Tract A which is designated as future development. To the east of the site is the Aura Crossroads apartment complex, legally described as Lot 1 Crossroads Mixed Use Filing No. 1. To the south of the site is the public right-of-way of US Highway 24 which varies in width. Adjacent to the southwest corner of the site is Tract C, which is dedicated to detention facilities. Immediately west of the site is Tract B which is designated as future development and further west is the 100' wide public right-of-way of Peterson Road. There are no existing or proposed public roadways internal to the site. The assessor's parcel numbers for this development are currently 5408007001 and 5408007004. The property is not within a Streamside Zone or Hillside Zone. There are no no-build or preservation easements or areas within the platted parcel.

Legal Description

Parcel A:

Lot 1, Cimmaron Hills Southeast Mixed Use Filing No. 1

Description of Property

The undeveloped site (zoned RM-30) contains few site improvements which include unpaved trails and abandoned softball fields. The overall on-site imperviousness is approximately 2% and the site is sparsely vegetated by grass, shrubs, and trees. There are no structures or impervious areas on site. The site generally slopes from the northeast down to the southwest.

The site consists of 88.3% Blakeland loamy sand and 11.7% Blendon sandy loam per the USDA, NRCS web soil survey. This soil is categorized as Hydrologic Soil Group A and Group B. The NRCS soil survey is presented in Appendix A. Describe the erodibility of those soil types

The developed site is to include apartment buildings, garages, recreational facilities, paved drive isles and parking areas, and private utilities and storm sewer network. The nine apartment buildings are spread throughout the site and parking spaces are provided along drive isles. Landscape areas surround apartment buildings and are dispersed throughout the islands in parking areas. Screening along adjacent rights-of-way is provided by landscape areas at the northern and southern edges of the site. The site is accessed by an entry on the adjacent public right-of-way of Meadowbrook Parkway to the north and an entry originating from the public right-of-way of Peterson Road to the west.

The on-site private storm includes private Type R sump and on-grate grate inlets within the drive isles and parking areas. Roof drains and dome inlets are tied directly into secondary drainage systems surrounding apartment buildings which connect to the main storm system. The storm system is made up of two main branches that ultimately outfall into forebays within the full spectrum detention pond within Tract C. The existing

private water quality and detention pond (by others) includes an outlet structure with orifice plate and micropool that is designed to provide detention and release the stormwater at or below historic rates.

The entirety of the 14.09 acre site will be disturbed for development. Offsite disturbances for the development include connecting the site to existing public utilities owned and maintained by Cherokee Metropolitan District within Tract B and the entry within the Meadowbrook Parkway right-of-way.

State total area to be disturbed including off-site disturbances.

Construction Activity

The proposed development ultimately described above as the nine apartment buildings, clubhouse building, fitness center building, and mail building with site features including a dog park, pool, pickleball court, and the drive aisle roadway network with sidewalk, private utilities, and landscaping is constructed in three distinct phases: Initial Construction Phase, Interim Construction Phase, and Final Construction Phase.

The phasing of construction is conducive to horizontal and vertical construction while maintaining the stormwater management of the site to minimize erosion and sediment transport, while also phasing installation of infrastructure and hardscape so as to avoid damage and degradation of new facilities and pavement while continually constructing buildings/vertical elements. The specific construction activities involved with the three phases are described in more detail below and the following section describes the Construction Control Measures (CCMs) involved with each phase.

Initial Construction Phase:

Initial phase construction activity consists of installation of perimeter control construction control measures (CCMs) including silt fence which is to be installed at the property boundary of Lot 1. Silt fence to the west and south are an erosion and sediment control measure for the earthwork to take place internal to the site. Silt fence at the east of the property is upstream of internal site earthwork activities and downstream from the offsite adjacent property to the east. The northern silt fence is a perimeter control measure and does not experience any upstream or downstream sediment transport.

Initial phase CCMs are installed at this time prior to construction activity on the site including vehicle tracking control along the existing Meadowbrook Parkway roadway in the area of a future curb cut access, and two main areas of stabilized staging areas and stockpile areas located to the north and south of the site for flexibility in staging and stockpiling across the site.

Traffic control is to be implemented as required in this phase.

Three (3) temporary sediment basins are designed for the site to capture sediment transport of their respective tributary areas during initial earthwork activities on the site. TSB 1 and 2 are located on future apartment building pads for ease of transition from TSB to backfilled foundation work during the final construction phase. TSB 3 is located in the area of a future garage structure and open space with future storm main. All TSB's have outlet riser pipes that outfall into the existing public metro district owned and maintained full spectrum detention pond that is a regional facility for this development. Any disturbance within the pond for installation of these outfall pipes are allowable by the Metro District.

Clearing and grubbing and general overlot earthwork takes place in the initial phase.

Interim Construction Phase:

1. Roadway/drive aisle corridor grading including sub-grade compaction, building pad grading to bottom of-footer elevations and general site grading takes place to near-final grade. No detailed grading to take place at this phase.
2. Utility trenching, installation, and backfill for sanitary sewer, storm, water, electric, and fiber. Backfill requirements follow that of the respective agency. Scope includes setting of manholes, valve boxes, etc. To final grades, building of transformer pads and installation of electric facilities, installation of utility services to stub locations at building pads, installation of secondary landscape drain systems stubbed to roof drain locations for future vertical construction tie-ins, installation of storm inlets to flowline grades.
3. Irrigation to be installed with utility installations.
4. Construction of roadways and drive aisles to their aggregate base course section. HMA mat is not installed at this time, until final phase to allow construction vehicles on site for vertical construction and to avoid pavement degradation and damage during vertical construction phase.

Final Construction Phase:

1. Vertical construction of all structures: apartments (9), clubhouse building, fitness facility, mail building, dumpster enclosures, and garage structures. It is anticipated that construction of these buildings will be in a logical direction/order either from north to south or south to north. Vertical construction of buildings will not all be simultaneous.
2. Asphalt and concrete hardscape construction to be installed in areas of finished buildings and facilities. Installation of site ADA ramp installation, permeable paver installation in ADA parking locations, ADA ramp with handrail accesses at buildings.
3. Striping and signage.
4. Restoration of existing pavement and facilities as needed, e.g. Meadowbrook Parkway curb cut patching.
5. Final stabilization of open space and landscaped areas in areas of finished buildings. Seeding and mulching where specified, landscaping of trees and plantings to take place as shown on landscaping plans.

II. Construction Phasing

Phasing and Sequence Schedule

The proposed major construction activities and Construction Control Measures for the project correspond to the Grading and Erosion Control Plans and are sequenced as follows:

1. Install initial phase SF perimeter control. Install VTC and establish SSA and SP areas. (Spring 2027)

2. Clear, grub and grade site & for improvements. (Spring 2027)
3. Construct TSB's with outfall pipes daylighting as designated. (Spring 2027)
4. Establish interim phase SSA, CWA, SCL, temporary IP, temporary OP. Trench, install, and backfill utilities. Utilities in roadways/drive aisles to be built to aggregate base course section only. Overlot grading of building pad areas to bottom of footer elevations. Near-final grading of all other areas of the site for future installation of hardscape and landscaping. Install Interim/Final phase ECB for sloped areas. (Spring – Fall of 2027)
5. Final Phase Vertical Construction and Horizontal Hardscape construction throughout site. Final hardscape of sidewalk, drive aisles, striping to take place in areas of minimal activity following near-finished vertical construction of buildings. (Fall 2027 – Summer 2028)
6. Installation of SM and final phase ECB. (Summer – Fall 2028)
7. Ensure final stabilization achieved prior to site closure. Visual inspection to adjacent, existing vegetation is acceptable. (Fall 2028)

Construction Documentation

Construction drawings are provided with this document showing the Grading and Erosion Control plan for this project and are intended to be a "living" document used by the SWMP Manager to document construction activities. See Appendix F for record log.

III. Pre-Development Conditions and Soils

Floodway

Based on FEMA Firm map 08041C0754G dated December 7, 2018, the site is Zone X, which are areas determined to be outside the 0.2% annual chance flood. No portion of the site is within a designated FEMA floodplain.

A map is provided in Appendix A.

Existing Vegetation

The overall on-site imperviousness is approximately 2% and the site is sparsely vegetated by grass, shrubs, and trees. There are no structures or impervious areas on site. The site generally slopes from the northeast down to the southwest. Provide a percent cover from native vegetation, include the method for determining the percent cover

Existing Slopes

The site consists of a fairly consistent slope between 2% and 5% in a west and southwesterly directions.

Existing Drainage Patterns

A majority of stormwater runoff upstream of the development sheet flows over undeveloped land to a regional full spectrum detention pond located to the southwest within Tract C as a part of the Cimarron Hills Southeast Mixed Use Filing No. 1 development. The Pond was established with this multi-family development as a part of the Final Plat application for the master planned development and this apartment development is cited within the FDR which informed the design of the regional PCM. The existing drainage pattern of the site is such that stormwater flow from the western boundary drains southwest off-site, but ultimately south to the regional facility.

Off-site stormwater flow from the upstream, eastern adjacent multi-family site is minimal as there was a berm constructed as a part of that development (Aurora Crossroads Apartments).

IV. Description of Potential Pollutants

Potential sources of sediment to stormwater runoff include earth moving and concrete activities associated with grading, multi-family apartments and other site structure construction including concrete foundations and hardscape, and landscaping.

Potential pollutants and sources other than sediment to stormwater runoff include trash, debris, fueling and equipment failure. Materials of significance stored on the project site include sediment, concrete washout, cement, trash & debris, fuels and oils.

Discharges of concrete/masonry washout water are the only allowable non-stormwater discharges from the site.

Construction activities can produce a variety of pollutants that can potentially cause stormwater contamination. Grading activities remove rocks, vegetation and other erosion controlling surfaces and can result int he exposure of underlying soil to the elements, which can then be displaced into water sources.

Wind and erosion and vehicular transport can produce sediment debris.

Potential Sources of Pollution:

1. Potential sources of pollution from construction activities include
    a. Disturbed or stored soils
    b. Vehicle tracking of sediment
    c. Loading & unloading operations
    d. Outdoor Storage activities
    e. Vehicle and Equipment Maintenance/Fueling
    f. Dust or Particulate Generating Processes
    g. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents etc.
    h. On-site waste management (waste piles, liquid wastes, dumpsters)
    i. Concrete truck/equipment washing (washing truck chute and associated fixtures)
    j. Non-industrial waste (worker trash and portable toilets)

V. Self-Inspections

Self-inspections of the Construction Control Measures must be completed by the certified GEC Administrator. The below provides the minimum to satisfy the El Paso County self-inspection requirements. A more frequent self-inspection schedule may be required to ensure Control Measures are operating in compliance with the approved GEC plan.

1. Inspection Schedules:
    a. The GEC Administrator shall make a thorough inspection of the Control Measures:
        i. At least once every fourteen (14) calendar days.

ii. Within 24 hours following any precipitation event (i.e. rain, snow, hail etc.) that causes surface erosion.
    - Alternatively, the GEC Administrator can perform a thorough inspection of the Control Measures once every seven (7) days and forego post-precipitation inspections.

b. For sites where construction activities have completed and final stabilization measures installed but final stabilization has not yet been achieved, the GEC Administrator shall make a thorough inspection of the Control Measures:
    i. At least once every 30 days
    ii. Within 72 hours following any precipitation event that causes surface erosion

2. Inspection Procedures:
    a. Site Inspection & Observation Items:
        i. Limits of disturbance perimeter and stormwater discharge points
        ii. All disturbed areas to ensure necessary Construction Control Measures are in place to control potential stormwater runoff.
        iii. Areas used for material/waste storage.
        iv. Any areas having a signification potential for storm water pollution (i.e site entrances, concrete washout areas etc.)
        v. All Construction Control Measures identified on the GEC plans.
    b. Inspection Requirements:
        i. Determine any locations, or potential locations, where pollutants and stormwater may be exiting the site/entering the receiving waters.
        ii. Evaluate Construction Control measures and determine if they are constructed in accordance with the latest revision of the approved GEC plan and operating effectively.
        iii. Provide recommendations for the need of additional Construction Control measures and the maintenance of existing measures in disrepair to ensure complication with the El Paso County Stormwater Construction Manual.
    c. Construction Control Measure Maintenance/Replacement:
        i. The GEC administrator shall ensure sediment has been removed from perimeter controls and relocated to an area without the potential for sediment to discharge from the site
        ii. The GEC administrator shall ensure diversion ditches and temporary sediment ponds have not accumulated excess sediment that impedes their functionality.
        iii. The GEC administrator shall ensure that failed Control Measures are repaired/reinstalled within three (3) calendar days, according to the El Paso County Stormwater Control Measure details, to ensure pollutants and/or sediment do not discharge from the site. GEC details are provided in the GEC Plans and can be viewed in Appendix B.
    d. Documentation:
        i. Update the GEC plan to document the installation/revision of Control Measures
        ii. Identify Control Measure deficiencies and that noncompliance is resolved within three (3) calendar days.
        iii. Identify Self-Inspection schedule in most recent inspection form
        iv. Complete and submit Self-Inspection forms to the El Paso County within five (5) business days of the completed inspection

v. Ensure this SWMP, along with the associated GEC Plans, are available either physically or electronically throughout the duration of the project
vi. Self-Inspection Repost shall contain at least the following:
    - Inspection Date
    - Name and title of the GEC Administrator performing inspection
    - Location(s) of illicit discharges of stormwater, sediment or pollutants from the site
    - Location(s) of Construction Control Measures in need of maintenance/repair
    - Location(s) of Construction Control Measures that failed to operate as designed or proved inadequate
    - Location(s) of additional Construction Control Measures not shown on the latest, approved revision of the GEC plan
    - Any deviations from the minimum inspection schedule
    - Signature of GEC Administrator

VI. Materials Handling

1. General Materials Handling Practices:
    a. Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should be located away from storm drain inlets and should be equipped with covers, roofs or secondary containment as required to prevent stormwater from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spill materials cannot combine and react.
    b. Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
    c. Materials no longer required for construction shall be removed from the site as soon as possible.
    d. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and Control Measures clear and functional.
2. Specific Materials Handling Practices:
    a. All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate stormwater.
    b. All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored onsite shall be covered and protected from vandalism.
    c. Maintenance, fueling, and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, degreasing operation, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.
    d. Wheel wash water shall be settled and discharged onsite by infiltration.
    e. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturer's recommendations for application rates and procedures.

f. pH-modifying sources shall be managed to prevent contamination of runoff and stormwater collected onsite. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

VII. Spill Prevention & Response Plan

1. The primary objective in responding to a spill is to quickly contain the material and prevent or minimize their mitigation into stormwater runoff and conveyance systems. If the release has impacted onsite stormwater, it is critical to contain the released materials onsite and prevent their release into receiving waters.
2. Spill Response Procedures:
    a. Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
    b. If spills represent an imminent threat of escaping onsite facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent once the situation has stabilized.
    c. The site superintendent shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.
    d. Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
3. Spill kits shall be on-hand at all fueling sites. Spill kit locations shall be reported to the GEC administrator.
4. Absorbent materials shall be on-hand at all fueling areas for use in containing advertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
5. Recommended components of spill kits include the following:
    a. Oil absorbent pads
    b. Oil absorbent booms
    c. 55-gallon drums
    d. 9-mil plastic bags
    e. Personal protective equipment including gloves and goggles
6. Concrete wash water: unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site.
7. Notification procedures:
    a. In the event of an accident or spill, the GEC administrator shall be notified.
    b. Depending on the nature of the spill and material involved, the Colorado Department of Public Health and Environment, downstream water users, or other agencies may also need to be notified.
    c. Any spill of oil which 1) violates water quality standards, 2) produces a “sheen” on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.

There are no dedicated batch plants proposed as a part of this project and therefore a source of pollution requiring spill prevention and response is not anticipated.

VIII. Implementation of Control Measures

Stormwater control measures must be installed according to El Paso County design specifications, presented in Appendix D, and the approved Grading and Erosion Control plan this report supports (Appendix B). Within the context of this SWMP's construction activities the following control measures, at a minimum, are required:

- Perimeter Silt Fence
  - Silt fence is to be installed at the initial construction phase at the perimeter of the project to prevent sediment runoff offsite from the project disturbance area. While disturbance for roadway construction may be more central to the project construction area, the silt fence acts as a barrier for downstream sediment from the disturbed area and may remain in place for private lot construction.
- Vehicle Tracking Control
  - Vehicle Tracking Control is required for the ingress/egress areas of the project for large construction vehicles to access the site with minimal disturbance to existing infrastructure and pavement. The VTC also assists in debris removal from vehicles prior to exit of the site. The control measure is to be installed at the initial construction phase
- Stabilized Staging Area
  - A designated stabilized staging area is required for equipment staging at the initial construction phase. This area is to be sufficient in size and relatively flat to prevent erosion and sediment runoff when handling materials and maneuvering vehicles. Perimeter controls of the SSA are recommended as localized erosion and sediment control of this area.
- Stockpile Protection
  - A designated stockpile area is required for dirt and debris containment at the initial construction phase. This area is to have perimeter controls for localized erosion and sediment control. Frequent export haul is recommended to maintain a minimal stockpile size and minimize sediment runoff during rain events during construction activities.
- Inlet Protection
  - Inlet protection is to be installed to prevent sediment runoff from entering storm systems and allow present and future stormwater conveyance as designed. Inlet protection is to remain in place until permanent stabilization is completed. Any sediment identified in inlets and storm pipes is to be removed prior to inspection and/or final permanent stabilization. Frequent inspection and maintenance of the inlet protection is to take place to ensure that wear and tear of the control measure has not taken place.
- Outlet Protection
  - Outlet protection is to be installed to prevent sediment runoff from being transported via storm infrastructure at outfall points. Outfall areas for this development are for the initial and interim phases for temporary sediment basin outfall pipes and the outfalls to the regional Pond from the private storm systems. Frequent inspection and maintenance of the inlet protection is to take place to ensure that wear and tear of the control measure has not taken place.
- Sediment Control Logs

  - Sediment control logs are installed at downstream edges of unpaved roadways that are built to their aggregate base course section in order to minimize sediment transport from construction activity that includes construction vehicles driving over those drive aisle sections. These are a primary CCM for sediment control internal to the site and the silt fence perimeter control is secondary at the interim phase.
- Erosion Control Blanket
  - Erosion Control Blanket is to be installed on disturbed slopes of 3:1 or greater to stabilize these areas for permanent stabilization in future construction phases. The erosion control blanket remains in place from the time of disturbance and establishment of the slope in perpetuity as natural degradation of the control measure will occur over time. Any disturbance of the blanket itself requires replacement to ensure stabilization of the slope.
- Seeding & Mulching
  - Seeding and mulching is proposed as a temporary construction phase control measure for slope stabilization and restoration of disturbed areas to remain pervious areas. Permanent seeding and mulching is included in the final construction phase as a permanent stabilization method to stabilize disturbed areas and provide vegetation.
- Concrete Washout Areas
  - Concrete Washout Areas are to be established at the initial construction phase as designated concrete washouts per MHFD details. The designated CWA's are to be monitored to ensure that effluent does not overflow or drain out of the excavation. Removal of materials is to take place prior to deconstruction and fill of the CWA.

Additional control measures may be required at the discretion of the County Stormwater Inspector.

Stormwater pollutant control measures for waste disposal and off-site soil tracking are to follow the State's CDPHE Brochure instructions and guidelines. Site specific off-site soil tracking is to be mitigated via Vehicle Tracking Control measures and daily project site street sweeping. Perimeter control measures are to be inspected and maintained as required to reduce sediment runoff.

IX. Final Stabilization & Long-Term Stormwater Management Plan

1. Temporary seeding and mulching will be installed to provide interim stabilization prior to final landscaping installation, where applicable (Refer to approved Landscape Plan). Final stabilization will be achieved at time of final landscaping. See approved landscaping plans for final stabilization details. Final stabilization is met when a vegetative cover density of 70% pre-disturbed conditions, not including noxious weeds, are achieved. Visual inspection to adjacent existing cover is acceptable. Final stabilization must be achieved prior to removal of temporary stormwater control measures. Anticipated date of final stabilization is Fall 2026, however, this is subject to change. Long term stormwater management will be provided in the proposed onsite, private full spectrum detention pond. Pond A is located at the southeast of the site. Permanent Best Management Practices construction documents for Pond A have been prepared for this development. See below for seeding and mulching details:
   a. Prior to seeding, fill any eroded rills and gullies with topsoil.
   b. Ensure all areas are seeded and mulched per the County Stormwater Construction Manual.

Off-site regional pond?

Pond 1

SW

c. Continue monthly self-inspections of final stabilization methods and the stormwater management system to ensure proper function. If repairs are needed, reseed and re-mulch as needed.
d. Control noxious weeds in a manner acceptable to the GEC inspector.
e. Seed Mix: See Appendix D for approved seed mixes.
f. Seeding Requirements:
    i. Drill seed whenever possible, seed depth must be 1/3 to ½ inch when drill-seeding. Cross drilling should be used whenever possible with the seed divided between the two operations. The second drilling should be perpendicular to the first.
    ii. When drill seeding is not possible or on slopes greater than 3:1, hydro-seeding with tackifier may be substituted at the discretion of the GEC inspector. Hydro-seeding must be lightly raked into soil. Seeding rates are presented in Appendix D.
    iii. All seeded areas must be mulched.
g. Mulching Requirements:
    i. Mulching shall be completed as soon as practical after seeding but no more than fourteen (14) days after planting. Erosion control blanket can be used in place of the below mulching methods.
    ii. Hay or straw mulch:
        1. Only certified weed-free and certified-seed free mulch may be used. Must be applied at 2 tons/acre and adequately secured.
        2. Crimping shall not be used no slopes greater than 3:1, tackifier must be used in place.
    iii. Hydraulic mulching:
        1. Allowable on steep slopes or areas with limited access
        2. If hydro-seeding is used, mulching must be applied secondly.
        3. Wood cellulose fibers mixed with water must be applied at a rate of 2,000-2,500 lbs/acre, and tackifier applied at a rate of 100 lbs/acre.

2. The project control measures are to be owned and maintained by the Developer or their assigns (General Contractor, GEC Administrator).
3. This Stormwater Management Plan Report is a living document that is to be continuously reviewed and modified as part of the overall process of evaluating and managing stormwater quality issues at the site. The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, or operations and maintenance of the site which would require the implementation of new or revised control measures or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with the construction activity when control measures are no longer necessary and are removed.

X. References

El Paso County – Drainage Criteria Manual, latest revision October 31, 2018

El Paso County – Engineering Criteria Manual, latest revision October 14, 2020

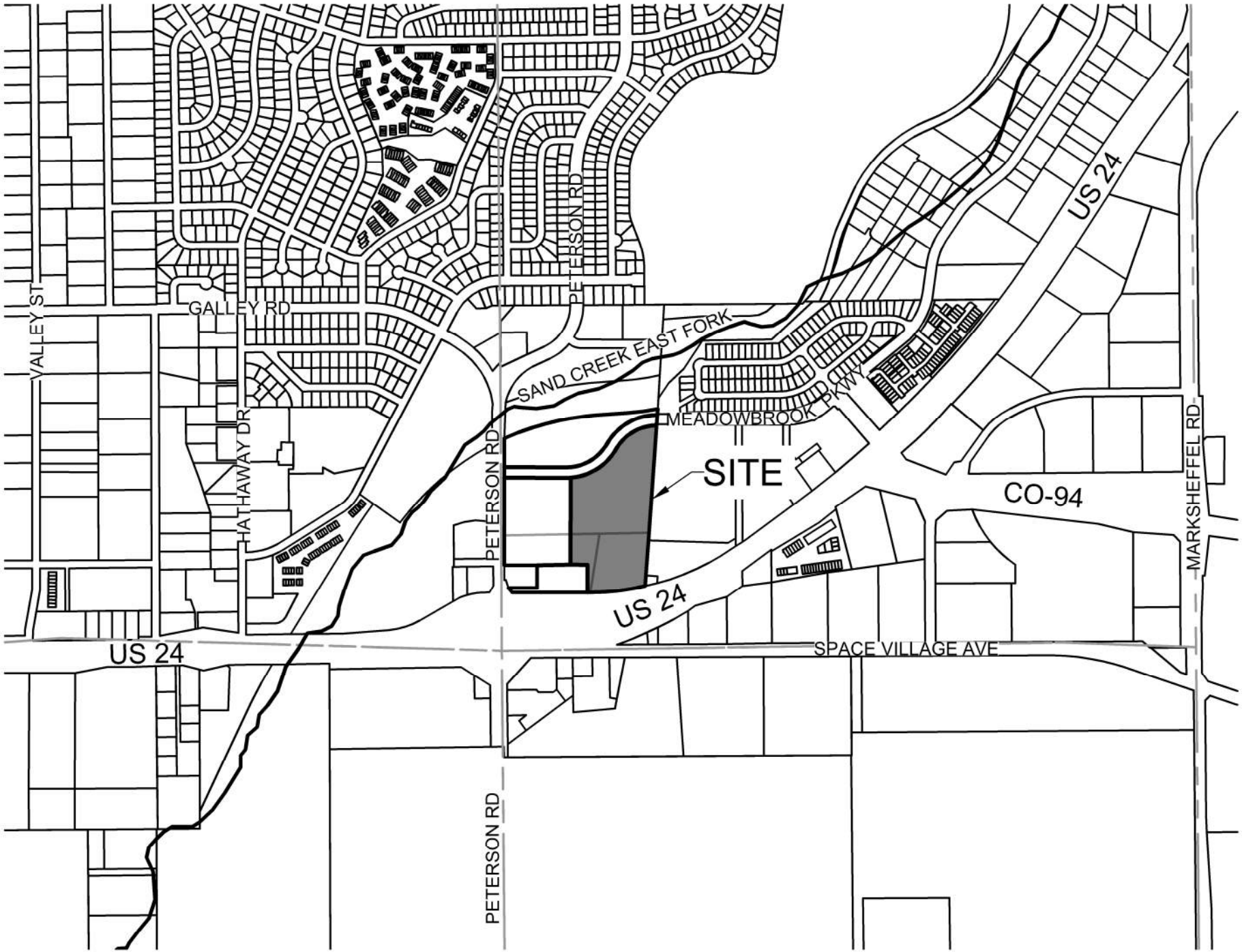
Mile High Flood District Urban Storm Drainage Criteria Manual Volumes 1, 2, and 3; latest revisions

Bristlecone Ecology – Natural Features and Wetlands Report October 8th 2024

APPENDIX A – VICINITY MAP & NRCS SOIL SURVEY & FEMA MAP

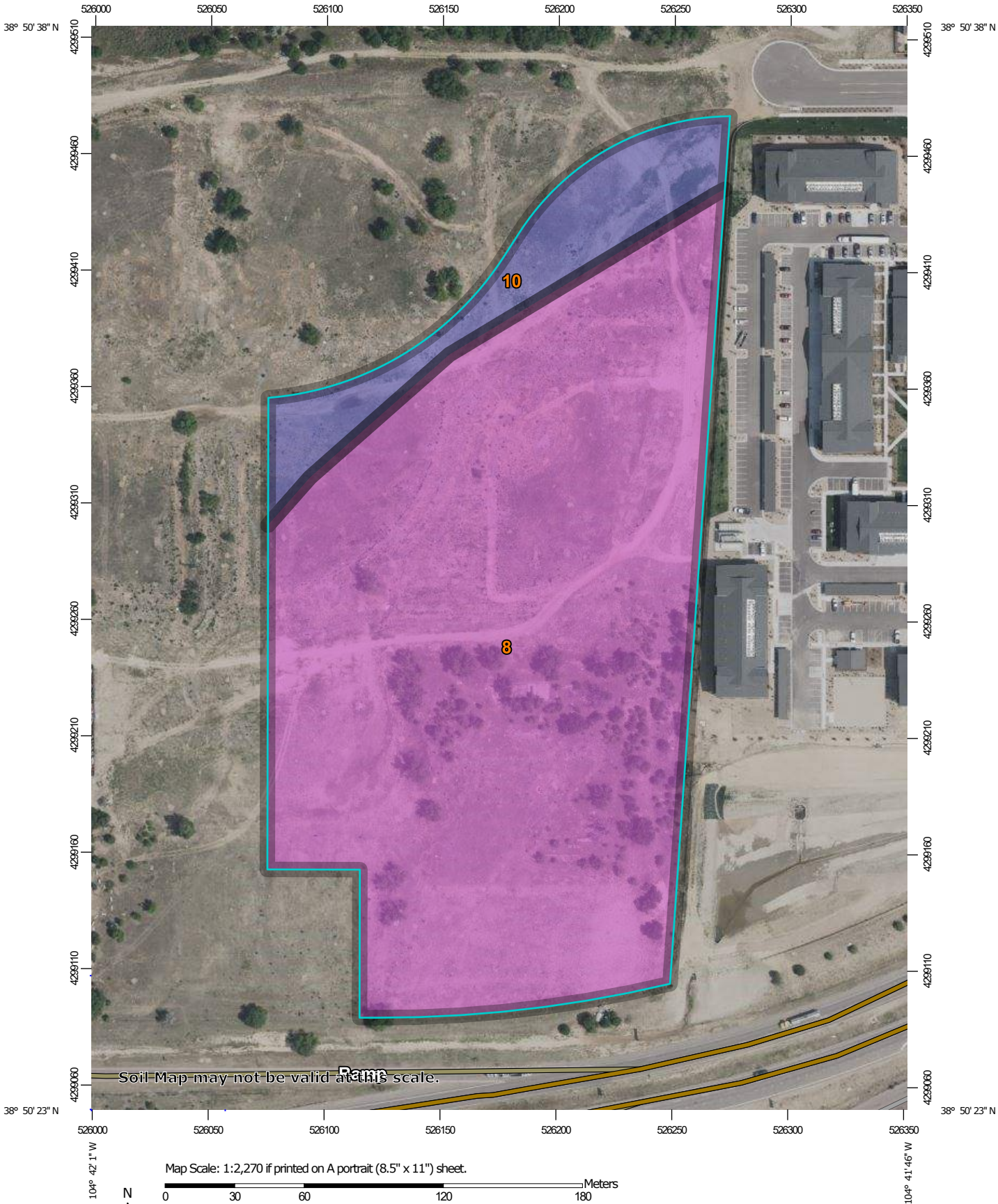
VICINITY MAP

HILLPOINTE APARTMENTS AT PETERSON



SCALE: 1" = 1000'

Hydrologic Soil Group—El Paso County Area, Colorado
(Hillpointe Apartments at Peterson)



Map Scale: 1:2,270 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 23, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2024—Aug 4, 2024

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	A	12.4	88.3%
10	Blendon sandy loam, 0 to 3 percent slopes	B	1.6	11.7%
Totals for Area of Interest			**14.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

1DWLRQDO)ORRG +D]DUG / FEMA) F6HWWH

f : f 1



)HHW

f : f 1

/HJHQG

6(( ),6 5(3257)25 '(7$,/(' /(*(1' $1' ,1'(; 0$3)25),50

63(&,$/)/2 +$=$5' $5(:LWKRXW %DVH)ORRG (O =RQH $ 9 $:LWK %)(RU +HLJKW 5HGXFHG\ )ORRGZD\

$QQXDO &KDQFH)ORR RI DQQXDO FKDQFH IO GHSWK OHVV WKDQ RQH DUHDV RI OHVV WKDQ RQ)XWXUH &RQGLWLRQV &KDQFH)ORRG +D]DUG $UHD ZLWK 5HGXFHG)OR /HYHH 6HH 1RWHV

27+(5 $5($6)/22' +$=$5' $UHD ZLWK)ORRG 5LVN

12 6&5((1 $UHD RI 0LQLPDO)ORRG (IIHFWLYH /205V

27+(5 $5($6 $UHD RI 8QGHWHUPLQHG

*(1(5$/ &KDQQHO &RQYH\DQFH 6758&785(6 /HYHH 'LNH RU)ORRGZD

&URVV 6HFWLRQV ZLW :DWHU 6XUIDFH (OHYDWL &RDVWDO 7UDQVHFW %DVH)ORRG (OHYDWLRQ /LPLW RI 6WXG\ -XULVGLFWLRQ %RXQGDU &RDVWDO 7UDQVHFW %DV

27+(5)($785(6 3URILOH %DVHOLQH +\GURJUDSKLF)HDWXUH

'LJLWDO 'DWD $YDLODEO 1R 'LJLWDO 'DWD $YDLOD 8QPDSSHG

7KH SLQ GLVSOD\HG RQ WKH SRLQW VHOHFWHG E\ WKH XV DQ DXWKRULWDWLYH SURSHU

7KLV PDS FRPSOLHV ZLWK)(0$ V VWDQ GLJLWDO IORRG PDSV LI LW LV QRW YR 7KH EDVHPDS VKRZQ FRPSOLHV ZLWK) DFFXUDF\ VWDQGDUGV

7KH IORRG KD]DUG LQIRUPDWLRQ LV GH DXWKRULWDWLYH 1)+/ ZHE VHUYLFHV S ZDV H[SRUWHG RQ DQG GRHV QRW UHIOHFW FKDQJHV RU DPHQGPHQWV VX WLPH 7KH 1)+/ DQG HIIHFWLYH LQIRUP EHFRPH VXSHUVHGHG E\ QHZ GDWD RYH

7KLV PDS LPDJH LV YRLG LI WKH RQH R HOHPHQWV GR QRW DSSHDU EDVHPDS OHJHQG VFDOH EDU PDS FUHDWLRQ G),50 SDQHO QXPEHU DQG),50 HIIHFWLY XQPDSSHG DQG XQPRGHUQL]HG DUHDV UHJXODWRU\ SXUSRVHV

%DVHPDS ,PDJHU\ 6RXUFH 86*6 1DWLRQDO 0DS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the **North American Vertical Datum of 1988 (NAVD88)**. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at http://www.ngs.noaa.gov/.

Base Map information shown on this FIRM was provided in digital format by El Paso County, Colorado Springs Utilities, and Anderson Consulting Engineers, Inc. These data are current as of 2008.

This map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable, in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact **FEMA Map Service Center** (MSC) via the FEMA Map Information eXchange (FMIX) 1-877-336-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The MSC may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

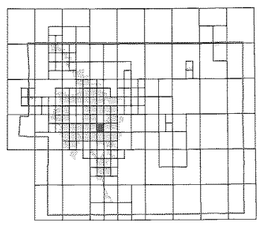
If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

El Paso County Vertical Datum Offset Table

Flooding Source	Vertical Datum Offset (ft)

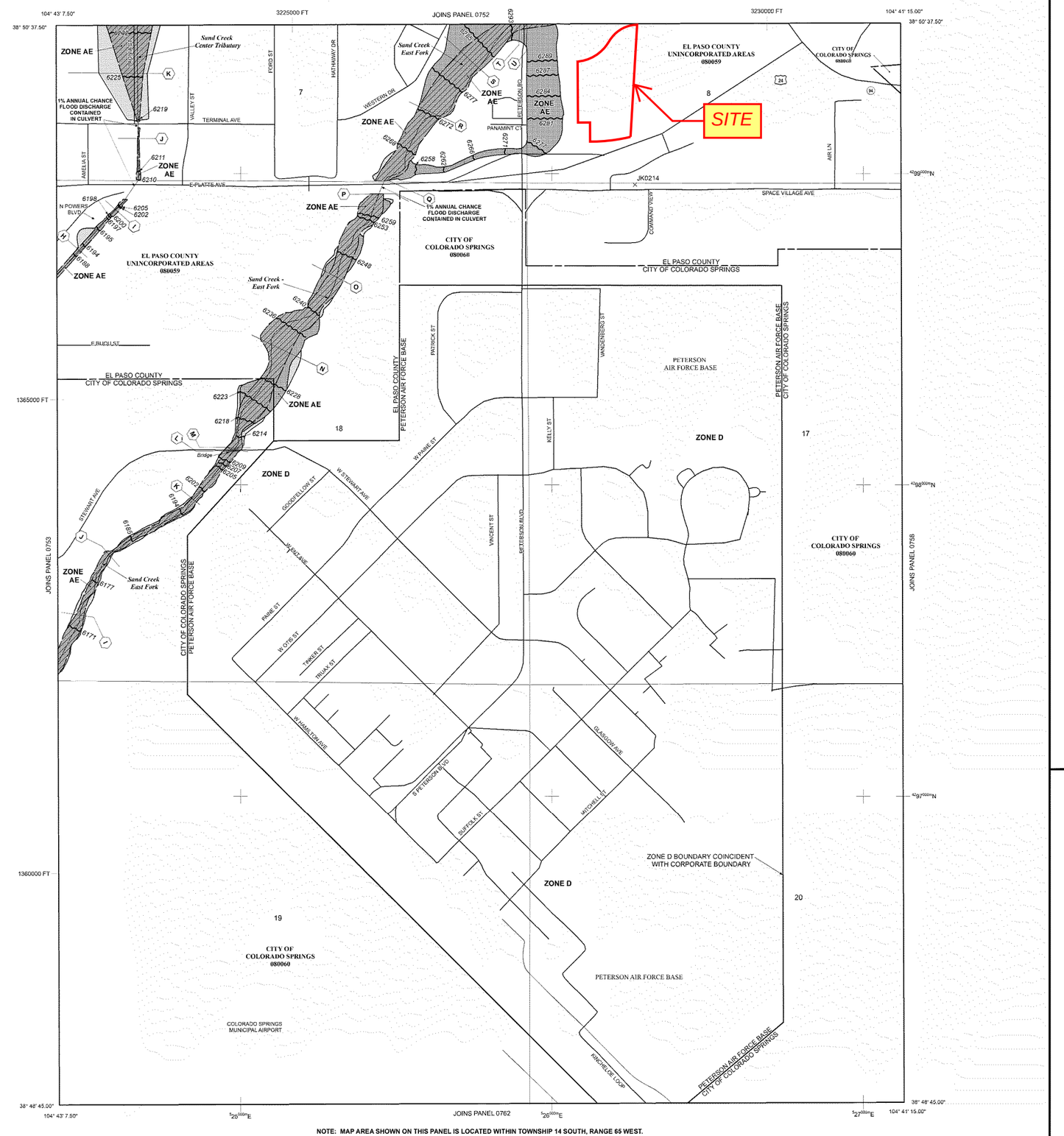
REFER TO SECTION 3.3 OF THE EL PASO COUNTY FLOOD INSURANCE STUDY FOR STREAM BY STREAM VERTICAL DATUM CONVERSION INFORMATION

Panel Location Map



This Digital Flood Insurance Rate Map (DFIRM) was produced through a Cooperating Technical Partner (CTP) agreement between the State of Colorado Water Conservation Board (CWCB) and the Federal Emergency Management Agency (FEMA).

Additional Flood Hazard information and resources are available from local communities and the Colorado Water Conservation Board.



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 14 SOUTH, RANGE 65 WEST.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Area Formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97° 07' 30.00" / 32° 22' 30.00" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 13
- 6000000 FT — 5000-foot grid ticks: Colorado State Plane coordinate system, central zone (FIPSZONE 0502), Lambert Conformal Conic Projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
MARCH 17, 1997

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
DECEMBER 7, 2018 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History Table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0754G

FIRM
FLOOD INSURANCE RATE MAP
EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 754 OF 1300
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0754	G
EL PASO COUNTY	080059	0754	G

Notice: This map was reissued on 05/15/2020 to make a correction.This version replaces any previous versions. See the Notice-to-Users Letter that accompanied this correction for details.

Notice to Users: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08041C0754G

MAP REVISED
DECEMBER 7, 2018

Federal Emergency Management Agency

APPENDIX B – GEC PLANS

(TO BE INCLUDED ONCE APPROVED)

APPENDIX C – CALCULATIONS

TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6285.0	**3630**								
6286.0	**4637**	**0.1065**	4,123	0.0355	**4,123**	**0.095**	8,532	0.1959	**6,286.85**
6287.0	**5745**	**0.1319**	5,181	0.1189	**9,304**	**0.214**			
6288.0	**6953**	**0.1596**	6,339	0.1455	**15,644**	**0.359**			
6289.0	**8009**	**0.1839**	7,475	0.1716	**23,119**	**0.531**	17,064	0.392	**6,288.19**

COLUMN 1	**CENTROID EL.**
ORIFICE 1	6,286.85
ORIFICE 2	6,287.18
ORIFICE 3	6,287.51
ORIFICE 4	6,287.84
ORIFICE 5	6,288.17

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.1959	design volume (acre feet)	*<15 ac.		
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.339	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
A_0 =	0.5891	in^2	**0.5874**	in^2	**USE 7/8" DIA.**
Dia	0.86	in			
	1.73	Dia=/2			
	3.46	Dia=/4			
	6.92	Dia=/8			
	13.84	Dia=/16			
	27.67	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	4.740	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	4.740	Acres		
Sediment volume	17,064	cu-ft	0.3917	Acres-ft
Volume below lowest hole	8,532	cu-ft	0.1959	Acres-ft
Volume above lowest hole	8,532	cu-ft	0.1959	Acres-ft
Total Volume	17,064	cu-ft	0.3917	Acres-ft

Note: **Enter values in highlighted cells only.**

TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6282.6	**5805**								
6283.0	**6158**	**0.1414**	2,392	0.0188	**2,392**	**0.055**			
6284.0	**7635**	**0.1753**	6,883	0.1580	**9,276**	**0.213**	11,268	0.2587	**6,284.24**
6285.0	**9213**	**0.2115**	8,412	0.1931	**17,687**	**0.406**			
6286.0	**10892**	**0.2500**	10,041	0.2305	**27,728**	**0.637**	22,536	0.517	**6,285.48**
6286.5	**11768**	**0.2702**	5,664	0.1300	**33,392**	**0.767**			

COLUMN 1	**CENTROID EL.**
ORIFICE 1	6,284.24
ORIFICE 2	6,284.57
ORIFICE 3	6,284.90
ORIFICE 4	6,285.23

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.2587	design volume (acre feet) *<15 ac.			
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.246	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
A_0 =	0.7655	in^2	**0.7632**	in^2	**USE 1" DIA.**
Dia	0.99	in			
	1.97	Dia=/2			
	3.94	Dia=/4			
	7.89	Dia=/8			
	15.77	Dia=/16			
	31.55	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	6.260	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	6.260	Acres		
Sediment volume	22,536	cu-ft	0.5174	Acres-ft
Volume below lowest hole	11,268	cu-ft	0.2587	Acres-ft
Volume above lowest hole	11,268	cu-ft	0.2587	Acres-ft
Total Volume	22,536	cu-ft	0.5174	Acres-ft

Note: **Enter values in highlighted cells only.**

TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6283.0	**2645**	**0.0607**							
6284.0	**3728**	**0.0856**	3,171	0.0728	**3,171**	**0.073**	5,508	0.1264	**6,284.54**
6285.0	**4912**	**0.1128**	4,306	0.0989	**7,477**	**0.172**			
6286.0	**6196**	**0.1422**	5,542	0.1272	**13,019**	**0.299**	11,016	0.253	**6,285.64**
6286.7	**6877**	**0.1579**	4,573	0.1050	**17,593**	**0.404**			

COLUMN 1	**CENTROID EL.**
ORIFICE 1	6,284.54
ORIFICE 2	6,284.87
ORIFICE 3	6,285.20
ORIFICE 4	6,285.53

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.1264	design volume (acre feet)	*<15 ac.		
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.096	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
A_0 =	0.3927	in^2	**0.3915**	**in^2**	**USE 11/16 DIA.**
Dia	0.71	in			
	1.41	Dia=/2			
	2.82	Dia=/4			
	5.65	Dia=/8			
	11.30	Dia=/16			
	22.59	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	3.060	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	3.060	Acres		
Sediment volume	11,016	cu-ft	0.2529	Acres-ft
Volume below lowest hole	5,508	cu-ft	0.1264	Acres-ft
Volume above lowest hole	5,508	cu-ft	0.1264	Acres-ft
Total Volume	11,016	cu-ft	0.2529	Acres-ft

Note: **Enter values in highlighted cells only.**

BMP FEATURE	TOTAL TRIBUTARY AREA (AC)	DISTURBED AREA (AC)	UNDISTURBED AREA (AC)	BOTTOM SIZE (FT)	SEDIMENT VOLUME (AC-FT)	BASIN VOLUME (AC-FT)	BOTTOM ELEVATION	CREST ELEVATION	CREST, WxL (FT)	TOP OF POND ELEVATION	LOWEST ORIFICE ELEVATION	TOTAL AREA OF ORIFICES (SQ IN)	# OF ORIFICE COLUMNS	DIA. OF ORIFICES (IN)	RISER PIPE INVERT	DAYLIGHT ELEVATION	OUTLET PIPE LENGTH (FT)	OUTLET PIPE SLOPE
TSB 1	4.74	4.74	0.00	84'L x 44'W	0.39	0.53	6,285.00	6,288.20	10' x 20'	6,289.20	6,286.85	0.59	1	7/8"	6,285.60	6,283.75	238	0.8%
TSB 2	6.26	6.26	0.00	142.5'L x 41.3'W	0.52	0.77	6,282.60	6,285.50	12' x 15'	6,286.50	6,284.24	0.76	1	1"	6,282.99	6,281.90	127	0.9%
TSB 3	3.06	3.06	0.00	113'L x 24'W	0.25	0.40	6,283.00	6,286.00	6' x 20'	6,287.00	6,284.54	0.39	1	11/16"	6,283.29	6,281.90	121	1.2%

*ORIFICES TO BE EVERY 4" FROM LOWEST ORIFICE ELEVATION TO THE TOP OF RISER PIPE, TOTAL NUMBER OF ORIFICES VARY.

APPENDIX D – EL PASO COUNTY CONSTRUCTION CONTROL MEASURES

(REFER TO DETAIL SHEETS OF APPROVED GEC PLANS IN APPENDIX B FOR PROJECT SPECIFIC CONTROL MEASURE DETAILS)

APPENDIX E – SPILL PREVENTION PLAN

Spill Prevention, Control and Countermeasure (SPCC) Plan

Facility Name: _____
Address: _____
_____

Contact Name: _____
Phone: _____
Fax: _____
Email: _____

Certification: I hereby certify that I have examined the facility, and, being familiar with the provisions of 40 CFR part 112, attest that this SPCC plan has been prepared, or updated within 5 years, in accordance with good engineering practices and meets the requirements listed in 40 CFR part 112.

This plan has been certified by:

Date of certification: _____ *Engineer's Seal*

Copies of this plan are located at the facility and are available to all employees.

Location(s) of plan(s): _____

I. FACILITY INFORMATION

a. Facility Name: _____

b. Mailing Address: _____
_____

c. Physical address if different: _____
_____
_____

d. Owner Name: _____

e. Owner Address: _____
_____

f. Primary Contact Name: _____
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

g. Secondary Contact Name:
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

h. Date of Initial Operation: _____

II. SITE ASSESSMENT

a. Location:
Describe where facility is located. For example, "This site is located along Broad Creek about 2 miles north of its confluence with the Choptank River at Holland Point. Road access is from. . . . The site is located on Talbot County ADC map 22 (H5). Latitude is ___ and longitude is ___ ."

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

III. FACILITY DESCRIPTION

a. Acres of land: ____

b. Facilities and Equipment:
Place an X beside all that apply.

____ Garage for vehicle processing
____ Parts store
____ On-site crushcr
_____Impervious crush pad for crusher
____ Impervious pad for outside vehicle processing
____ Spill kit/emergency equipment
____ Refrigerant (Freon) extractor
____ Parts washer
____ Other structures and major equipment:

Please list: _____
_____
_____
_____
_____

c. Services:
Place an X beside all that apply.

____ Dismantler/Recycler
____ Sell used parts
____ Sell vehicles for scrap
_____Crushing
____ Auto body/repair shop
____ Sell used cars
____ Other services:

Please list: _____
_____
_____
_____

d. Fixed Storage:
List capacity and contents of each storage container. For example, "One 6,000 gallon above ground tank containing diesel fuel." Be sure to include diesel, gasoline, waste oil, heating oil, kerosene, paint thinner and other solvents. Also describe the construction of the containers, secondary containment for each, liquid level indicators, alarms and method of corrosion protection for each container._____

e. Non-Fixed Storage:
List capacity and contents of each storage container. For example, "One 55 gallon drum for recycled oil." Be sure to indicate what each container is used for, its condition and construction and how secondary containment is provided. _____

f. Total quantity of stored materials:
The combined quantity of the materials listed above: _____ gallons

IV. OIL SPILL HISTORY

Place an X on the appropriate line and proceed accordingly.

___ There has never been a significant spill at the above named facility.

___ There have been one or more significant spills at the above named facility. Details of such spill(s) are described below.

For each spill that occurred, supply the following information:

- Type and amount of oil spilled
- Location, date and time of spill(s)
- Watercourse affected
- Description of physical damage
- Cost of damage
- Cost of clean-up
- Cause of spill
- Action taken to prevent recurrence

V. POTENTIAL SPILL VOLUMES AND RATES

Fill in all applicable blanks. Be prepared to show the engineer documentation of flow rates. Your fuel vendor and the manufacturer of your storage and dispensing equipment should be able to provide this documentation.

Potential Event	Volume Released	Spill Rate
Complete failure of a full tank*	____ gallons	instantaneous
Partial failure of a full tank*	1 to ____ gallons	gradual to instantaneous
Tank overflow**	1 to ____ gallons	up to ____ gallons per minute
Leaking during unloading***	up to ____ gallons	up to ____ gallons per minute
Pipe failure****	up to ____ gallons	up to ____ gallons per minute
Leaking pipe or valve****	several ounces to gallons	up to ____ gallons per minute
Fueling operations****	several ounces to gallons	up to ____ gallons per minute
Oil and grease	several ounces to quarts	spotting

* Volume of largest tank
** Calculate using the rate at which fuel is dispensed from the delivery truck into your tank(s).
*** Calculate using the rate at which petroleum would be withdrawn from the tank if it should have to be emptied (*e.g.*, if it was being taken out of service).
**** Calculate based on the specifications of your equipment.

VI. SPILL PREVENTION AND CONTROL

a. Spill Prevention:
Provide specific descriptions of containment facilities and practices. Include description of items such as double-walled tanks, containment berms, emergency shut-offs, drip pans, fueling procedures and spill response kits. Also, describe how and when employees are trained in proper handling procedures and spill prevention and response procedures.

b. Spill discharge and flow:
For each potential spill source, describe where petroleum would flow in the event of a spill. For example, "The 6,000 gallon diesel tank has a pre-manufactured secondary containment system capable of holding 110 percent of the total volume of the tank" and, "A spill from engine repair would be contained inside the shop building and quickly cleaned up with oil absorbents." Incorporate site map by reference (see instructions under *Appendices*).

c. Spill response:
Identify what equipment would be deployed by whom and in what situation. Also, include phone numbers for response agencies, *e.g.*, U.S. Coast Guard, fire department, spill response contractors, etc. A copy of your spill response plan may be attached as an appendix to this SPCC plan in lieu of completing this section.

d. Security
Provide a description of how all containers are protected when the facility is not in operation or unattended. Include a description of fencing, access control, gates, locks, etc. that prevent access by unauthorized individuals.

VII. FACILITY INSPECTIONS

a. Routine Inspections

Name facilities and the frequency with which they are inspected. For example, "The fuel pumps are inspected daily. The materials storage area is inspected monthly." Describe all facility containers, piping, etc. that is to be inspected. Name the person who has responsibility to implement preventative maintenance programs, oversee on-site inspections, coordinate employee training, maintain records, update the plan as necessary, and ensure that reports are submitted to the proper authorities.

b. Annual Inspections

Include a description of annual comprehensive inspections. For example, "A site inspection is also conducted annually by appropriate responsible personnel to verify that the description of potential pollutant sources are accurate, that the map reflects current site conditions, and that the controls to reduce the pollutants identified in this plan are being implemented and are adequate. This annual inspection will be conducted above and beyond the routine inspections done focusing on designated equipment and areas where potential sources are located."

VIII. RECORD KEEPING

Describe record keeping procedures. For example, "Record keeping procedures consist of maintaining all records a minimum of three years. The following items will be kept on file: current SPCC plan, internal site reviews, training records, and documentation of any spills or maintenance conducted in regards to these sites." *Maintenance Inspection*, *Employee Training*, and *Record Keeping* logs are included in this template for your use.

IX. MAINTENANCE INSPECTIONS

Maintenance Coordinator: _____. Maintenance Coordinator responsibilities include implementation of preventative maintenance programs and oversight of on-site inspections.

Use this table to record inspections:

Facility Inspected	Date of Inspection	Name of Inspector	Result Pass/Fail	Comments

X. RECORD KEEPING OF INCIDENTAL SPILLS

Record Keeper: _____. Record Keeper responsibilities include maintaining records of incidents, updating the SPCC plan as necessary and ensuring reports are submitted to the proper authorities when necessary.

Incident No.	Type of Incident	Date of Occurrence	How it was Cleaned Up

APPENDIX F – SWMP REPORT REVISION LOG

SWMP REPORT REVISION LOG

REVISION #	DATE	BY	COMMENTS

APPENDIX G – QUALIFIED STORMWATER MANAGER CERTIFICATIONS

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Stormwater Permit Number: ESQ_____

Include signed ESQCP form (or placeholder) as within its own appendix section

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD_____

There are multiple Stormwater Permits. Please refer to Engineering Criteria Manual (ECM) Appendix I to determine which permit is applicable to your project.

This form initially acts as the permit application. Only once this form has been signed & approved, all other required documents have been submitted & approved, and the Notice to Proceed has been issued, does this form become an active permit.

Part I. Property Owner or Authorized Representative (Co-Permit Holder)	
Company/Organization	HILLPOINTE, LLC.
Name or Name of Representative	MARK FOSTER
Title	VICE PRESIDENT OF DEVELOPMENT
Physical Address (not PO Box)	
Street Number and Street Name	3773 CHERRY CREEK DRIVE NORTH SUITE #801 EAST TOWER
City, State, Zip Code	DENVER, COLORADO 80209
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	303-910-5470
Phone Number - Cell	
Email Address	MFOSTER@HILLPOINTE.COM

Part II. Contractor/Operator (Co-Permit Holder)*	
Company/Organization	
Name or Name of Representative	
Title	
Physical Address (not PO Box)	
Street Number and Street Name	
City, State, Zip Code	
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	
Phone Number - Cell	
Email Address	

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD

Part III. Qualified Stormwater Manager (QSM)*	
Company/Organization	
Name	
Phone Number - Office	
Phone Number - Cell	
Email Address	

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

Part IV. Project Information	
Project Name	HILLPOINTE APARTMENTS AT PETERSON ROAD
Address (or nearest major cross streets)	485 MEADOWBROOK PARKWAY (MEADOWBROOK PARKWAY AND PETERSON
Acreage	Total: 14.09 acres Proposed Disturbance: 14.15 acres
Description of Project	MULTI-FAMILY APARTMENT DEVLEOPMENT OF 300 UNITS WITH ASSOCIATED SITE ROADWAYS AND LANDSCAPING.
Schedule (input estimated month or season)	Start of Construction: SPRING OF 2027 Completion of Construction: FALL OF 2028 Final Stabilization: FALL OF 2028

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD_____

REQUIRED SUBMISSIONS

See ECM Appendix I for the documentation required to be submitted, reviewed, and approved in conjunction with this Stormwater Permit Form.

RESPONSIBILITY FOR DAMAGE

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), or persons acting on behalf of the Permit Holder(s), from any cause. The Permit Holder(s) shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), and persons acting on behalf of the Permit Holder(s), arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The Permit Holder(s) shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the Board of County Commissioners (BoCC) and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), persons acting in behalf of the Permit Holder(s) and the public, resulting from the performance of work or other activity under the permit, or arising out of the failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The Permit Holder(s) waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the Permit Holder(s) will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault of or negligence, whether active or passive, primary or secondary, on the part of the County, the Permit Holder(s), persons employed by the Permit Holder(s), or persons acting in behalf of the Permit Holder(s).

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD

APPLICATION AND PERMIT CERTIFICATION – PERMIT HOLDERS

We, as the Permit Holder(s), hereby certify that this application is correct and complete as per the requirements presented in the El Paso County Engineering Criteria Manual (ECM) and Drainage Criteria Manual (DCM) Volume 2. We, as the Permit Holder(s), have read and will comply with all of the requirements of the submitted Stormwater Management Plan (SWMP), Grading & Erosion Control (GEC) Plan, and any other documents specifying construction control measures to be used on the site, including permit conditions that may be required by the ECM Administrator. We understand that the approved plans are an enforceable part of the ESQCP. We further understand that we are to comply with all requirements set forth by the ECM and DCM Volume 2. We understand that the permitted area is that which is shown as the Limits of Disturbance on the GEC Plans. We further understand that a Construction Permit must be obtained and all necessary construction control measures are to be installed in accordance with the SWMP, GEC Plan, ECM, and DCM Volume 2 before land disturbance begins and that failure to comply will result in a Stop Work Order and may result in other penalties as allowed by law. We understand that the construction control measures are to be maintained on the site and be modified as necessary to protect stormwater quality as the project progresses. We further understand and agree to indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BoCC and ECM Administrator, from all claims, suits or actions of every name, kind and description as outlined in Responsibility for Damage section above.

_____ _____
Signature of Owner or Representative Date

MARK FOSTER
_____
Print Name of Owner or Representative

_____ _____
Signature of Contractor/Operator or Representative* Date
*If signed by a Rep, an Affidavit of Signature Authority must be included

_____
Print Name of Contractor/Operator or Representative

APPLICATION AND PERMIT CERTIFICATION – EL PASO COUNTY

The following signature from the ECM Administrator signifies the approval of this ESQCP Application.

_____ _____
Signature of ECM Administrator Date

Altitude Training Associates

Awards this Certificate of Completion to

Colleen Monahan

**Who on October 5, 2020 successfully completed a one day,
Instructor Led Online Training Class in:**

Stormwater Management & Erosion Control During Construction (GEC)

Instructor
Altitude Training Associates, LLC

altitudeta.com

ALTITUDE TRAINING ATA ASSOCIATES

Altitude Training Associates

Awards this Certificate of Completion to

Colleen Monahan

Who on October 6, 2020 Successfully Completed
The Following Instructor Led, Online Training Class:

Developing & Implementing Stormwater Management Plans (SWMP)

Instructor
Altitude Training Associates

altitudeta.com

ALTITUDE TRAINING ATA ASSOCIATES

2880 International Circle, Suite 110
Colorado Springs, CO 80910
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Email: Stormwater@elpasoco.com
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Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD
PPR2613

There are multiple Stormwater Permits. Please refer to Engineering Criteria Manual (ECM) Appendix I to determine which permit is applicable to your project.

This form initially acts as the permit application. Only once this form has been signed & approved, all other required documents have been submitted & approved, and the Notice to Proceed has been issued, does this form become an active permit.

Part I. Property Owner or Authorized Representative (Co-Permit Holder)	
Company/Organization	HILLPOINTE, LLC.
Name or Name of Representative	MARK FOSTER
Title	VICE PRESIDENT OF DEVELOPMENT
Physical Address (not PO Box)	
Street Number and Street Name	3773 CHERRY CREEK DRIVE NORTH SUITE #801 EAST TOWER
City, State, Zip Code	DENVER, COLORADO 80209
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	303-910-5470
Phone Number - Cell	
Email Address	MFOSTER@HILLPOINTE.COM

Part II. Contractor/Operator (Co-Permit Holder)*	
Company/Organization	
Name or Name of Representative	
Title	
Physical Address (not PO Box)	
Street Number and Street Name	
City, State, Zip Code	
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	
Phone Number - Cell	
Email Address	

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

2880 International Circle, Suite 110
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Stormwater Permit Number: ESQ

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD

Part III. Qualified Stormwater Manager (QSM)*	
Company/Organization	
Name	
Phone Number - Office	
Phone Number - Cell	
Email Address	

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

Part IV. Project Information	
Project Name	HILLPOINTE APARTMENTS AT PETERSON ROAD
Address (or nearest major cross streets)	485 MEADOWBROOK PARKWAY (MEADOWBROOK PARKWAY AND PETERSON
Acreage	Total: 14.09 acres Proposed Disturbance: 14.37 acres
Description of Project	MULTI-FAMILY APARTMENT DEVLEOPMENT OF 300 UNITS WITH ASSOCIATED SITE ROADWAYS AND LANDSCAPING.
Schedule (input estimated month or season)	Start of Construction: SPRING OF 2027 Completion of Construction: FALL OF 2028 Final Stabilization: FALL OF 2028

Confirm acreage disturbed matches value in SWMP

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Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD

REQUIRED SUBMISSIONS

See ECM Appendix I for the documentation required to be submitted, reviewed, and approved in conjunction with this Stormwater Permit Form.

RESPONSIBILITY FOR DAMAGE

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EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR TBD

APPLICATION AND PERMIT CERTIFICATION – PERMIT HOLDERS

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Signature of Owner or Representative

4/27/26
Date

MARK FOSTER
Print Name of Owner or Representative

Signature of Contractor/Operator or Representative*
*If signed by a Rep, an Affidavit of Signature Authority must be included

Date

Print Name of Contractor/Operator or Representative

APPLICATION AND PERMIT CERTIFICATION – EL PASO COUNTY

The following signature from the ECM Administrator signifies the approval of this ESQCP Application.

Signature of ECM Administrator

Date

2026 Financial Assurance Estimate Form
(with pre-plat construction)

Updated: 2/2026

PROJECT INFORMATION

Project Name: HILLPOINTE PETERSON | **Date: 2026-03-03** | **PCD File No. PPR####**

PPR2613

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	Remaining	
SECTION 1 - GRADING AND EROSION CONTROL (Construction and Permanent BMPs)								
Earthwork								*
less than 5,000; $8,000 min		CY	$ 7.50	=	$ -		$ -	*
5,001-20,000; $30,000 min		CY	$ 6.50	=	$ -		$ -	*
20,001-50,000; $100,000 min	45574.	CY	$ 4.50	=	$ 205,083.00		$ 205,083.00	*
50,001-200,000; $175,000 min		CY	$ 3.00	=	$ -		$ -	*
greater than 200,000; $500,000 min		CY	$ 2.50	=	$ -		$ -	*
Erosion Control Blanket	1510.	SY	$ 6.00	=	$ 9,060.00		$ 9,060.00	*
Seeding (inc. noxious weed mgmnt.) & Mulching	2.	AC	$ 2,037.00	=	$ 4,074.00		$ 4,074.00	*
Permanent Pond/PCM (provide engineer's estimate)		EA		=	$ -		$ -	*
				=	$ -		$ -	*
				=	$ -		$ -	*
[insert items not listed but part of construction plans]				=	$ -		$ -	*
Safety Fence		LF	$ 5.00	=	$ -		$ -	
Inlet Protection		EA	$ 322.00	=	$ -		$ -	
Rock Check Dam		EA	$ 908.00	=	$ -		$ -	
Concrete Washout Basin		EA	$ 1,790.00	=	$ -		$ -	
Sediment Basin	3.	EA	$ 3,483.00	=	$ 10,449.00		$ 10,449.00	
Sediment Trap		EA	$ 877.00	=	$ -		$ -	
Silt Fence	1742.	LF	$ 3.00	=	$ 5,226.00		$ 5,226.00	
Slope Drain		LF	$ 30.00	=	$ -		$ -	
Straw Bale		EA	$ 56.00	=	$ -		$ -	
Straw Wattle/Rock Sock		LF	$ 11.00	=	$ -		$ -	
Surface Roughening		AC	$ 507.00	=	$ -		$ -	
Vehicle Tracking Control	1.	EA	$ 3,840.00	=	$ 3,840.00		$ 3,840.00	
				=	$ -		$ -	
				=	$ -		$ -	
				=	$ -		$ -	
[insert items not listed but part of construction plans]				=	$ -		$ -	
MAINTENANCE (35% of Construction BMPs)				=	$ 6,830.25		$ 6,830.25	
* - Subject to defect warranty financial assurance. A minimum of 20% shall be retained until final acceptance (MAXIMUM OF 80% COMPLETE ALLOWED)		**Section 1 Subtotal**		**=**	**$ 244,562.25**		**$ 244,562.25**	
SECTION 2 - PUBLIC IMPROVEMENTS *								
ROADWAY IMPROVEMENTS								*
Construction Traffic Control	1.	LS	$ 5,000.00	=	$ 5,000.00		$ 5,000.00	*
Aggregate Base Course (135 lbs/cf)		Tons	$ 42.00	=	$ -		$ -	*
Aggregate Base Course (135 lbs/cf)	4150.	CY	$ 81.00	=	$ 336,150.00		$ 336,150.00	*
Asphalt Pavement (3" thick)		SY	$ 22.00	=	$ -		$ -	*
Asphalt Pavement (4" thick)	24865.	SY	$ 31.00	=	$ 770,815.00		$ 770,815.00	*
Asphalt Pavement (6" thick)		SY	$ 47.00	=	$ -		$ -	*
Asphalt Pavement (147 lbs/cf) _" thick		Tons	$ 140.00	=	$ -		$ -	*
Raised Median, Paved	530.	SF	$ 15.00	=	$ 7,950.00		$ 7,950.00	*
Signs (regulatory/advisory/guide/street)	2.	EA	$ 293.00	=	$ 586.00		$ 586.00	*
Epoxy Pavement Marking	2700.	SF	$ 19.00	=	$ 51,300.00		$ 51,300.00	*
Thermoplastic Pavement Marking		SF	$ 29.00	=	$ -		$ -	*
Barricade - Type 3	3.	EA	$ 380.00	=	$ 1,140.00		$ 1,140.00	*
Delineator - Type I		EA	$ 38.00	=	$ -		$ -	*
Curb and Gutter, Type A (6" Vertical)	10237.	LF	$ 49.00	=	$ 501,613.00		$ 501,613.00	*
Curb and Gutter, Type B (Median)	107.	LF	$ 50.00	=	$ 5,350.00		$ 5,350.00	*
Curb and Gutter, Type C (Ramp)		LF	$ 51.00	=	$ -		$ -	*
4" Sidewalk (common areas only)	5170.	SY	$ 69.00	=	$ 356,730.00		$ 356,730.00	*
5" Sidewalk		SY	$ 85.00	=	$ -		$ -	*
6" Sidewalk		SY	$ 113.00	=	$ -		$ -	*
8" Sidewalk		SY	$ 141.00	=	$ -		$ -	*
Pedestrian Ramp		EA	$ 1,961.00	=	$ -		$ -	*
Cross Pan, local (8" thick, 6' wide to include return)		LF	$ 87.00	=	$ -		$ -	*
Cross Pan, collector (9" thick, 8' wide to include return)	110.	LF	$ 131.00	=	$ 14,410.00		$ 14,410.00	*
Curb Opening with Drainage Chase		EA	$ 2,341.00	=	$ -		$ -	*
Guardrail Type 3 (W-Beam)		LF	$ 87.00	=	$ -		$ -	*
Guardrail Type 7 (Concrete)			04.00	=	$ -		$ -	*
Guardrail End Anchorage			35.00	=	$ -		$ -	*
Guardrail Impact Attenuator			58.00	=	$ -		$ -	*
Sound Barrier Fence (CMU block, 6' high)			13.00	=	$ -		$ -	*
Sound Barrier Fence (panels, 6' high)			15.00	=	$ -		$ -	*
Electrical Conduit, Size =			33.00	=	$ -		$ -	*
Traffic Signal, (provide engineer's estimate)				=	$ -		$ -	*
Survey Monumentation		EA	$ 638.00	=	$ -		$ -	*
				=	$ -		$ -	*

Include cost estimate for additional forebay and trickle channel

Add IP

Add SCL

All internal improvements should be under Section 3. Only public improvements, which would be Meadowbrook Parkway would included in Section 2.

PROJECT INFORMATION

Project Name: HILLPOINTE PETERSON		Date: 2026-03-03		PCD File No. PPR####

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	Remaining	
				=	$ -		$ -	*
				=	$ -		$ -	*
[insert items not listed but part of construction plans]				=	$ -		$ -	*
STORM DRAIN IMPROVEMENTS								*
Concrete Box Culvert (M Standard), Size (W x H)		LF		=	$ -		$ -	*
18" Reinforced Concrete Pipe		LF	$ 111.00	=	$ -		$ -	*
24" Reinforced Concrete Pipe		LF	$ 161.00	=	$ -		$ -	*
30" Reinforced Concrete Pipe		LF	$ 167.00	=	$ -		$ -	*
36" Reinforced Concrete Pipe		LF	$ 191.00	=	$ -		$ -	*
42" Reinforced Concrete Pipe		LF	$ 275.00	=	$ -		$ -	*
48" Reinforced Concrete Pipe		LF	$ 349.00	=	$ -		$ -	*
54" Reinforced Concrete Pipe		LF	$ 465.00	=	$ -		$ -	*
60" Reinforced Concrete Pipe		LF	$ 476.00	=	$ -		$ -	*
66" Reinforced Concrete Pipe		LF	$ 550.00	=	$ -		$ -	*
72" Reinforced Concrete Pipe		LF	$ 616.00	=	$ -		$ -	*
18" Corrugated Steel Pipe		LF	$ 136.00	=	$ -		$ -	*
24" Corrugated Steel Pipe		LF	$ 229.00	=	$ -		$ -	*
30" Corrugated Steel Pipe		LF	$ 244.00	=	$ -		$ -	*
36" Corrugated Steel Pipe		LF	$ 244.00	=	$ -		$ -	*
42" Corrugated Steel Pipe		LF	$ 226.00	=	$ -		$ -	*
48" Corrugated Steel Pipe		LF	$ 465.00	=	$ -		$ -	*
54" Corrugated Steel Pipe		LF	$ 459.00	=	$ -		$ -	*
60" Corrugated Steel Pipe		LF	$ 501.00	=	$ -		$ -	*
66" Corrugated Steel Pipe		LF	$ 580.00	=	$ -		$ -	*
72" Corrugated Steel Pipe		LF	$ 654.00	=	$ -		$ -	*
78" Corrugated Steel Pipe		LF	$ 728.00	=	$ -		$ -	*
84" Corrugated Steel Pipe		LF	$ 901.00	=	$ -		$ -	*
Flared End Section (FES) RCP Size = (unit cost = 6x pipe unit cost)		EA		=	$ -		$ -	*
Flared End Section (FES) CSP Size = (unit cost = 6x pipe unit cost)		EA		=	$ -		$ -	*
				=	$ -		$ -	*
[insert items not listed but part of construction plans]				=	$ -		$ -	*
End Treatment- Headwall		EA		=	$ -		$ -	*
End Treatment- Wingwall		EA		=	$ -		$ -	*
End Treatment - Cutoff Wall		EA		=	$ -		$ -	*
Curb Inlet (Type R) L=5', Depth < 5'		EA	$ 8,814.00	=	$ -		$ -	*
Curb Inlet (Type R) L=5', 5' ≤ Depth < 10'		EA	$ 10,835.00	=	$ -		$ -	*
Curb Inlet (Type R) L =5', 10' ≤ Depth < 15'		EA	$ 12,206.00	=	$ -		$ -	*
Curb Inlet (Type R) L =10', Depth < 5'		EA	$ 11,438.00	=	$ -		$ -	*
Curb Inlet (Type R) L =10', 5' ≤ Depth < 10'		EA	$ 12,689.00	=	$ -		$ -	*
Curb Inlet (Type R) L =10', 10' ≤ Depth < 15'		EA	$ 16,174.00	=	$ -		$ -	*
Curb Inlet (Type R) L =15', Depth < 5'		EA	$ 14,452.00	=	$ -		$ -	*
Curb Inlet (Type R) L =15', 5' ≤ Depth < 10'		EA	$ 17,237.00	=	$ -		$ -	*
Curb Inlet (Type R) L =15', 10' ≤ Depth < 15'		EA	$ 21,610.00	=	$ -		$ -	*
Curb Inlet (Type R) L =20', Depth < 5'		EA	$ 16,499.00	=	$ -		$ -	*
Curb Inlet (Type R) L =20', 5' ≤ Depth < 10'		EA	$ 20,012.00	=	$ -		$ -	*
Grated Inlet (Type C), Depth < 5'		EA	$ 8,156.00	=	$ -		$ -	*
Grated Inlet (Type D), Depth < 5'		EA	$ 11,435.00	=	$ -		$ -	*
Storm Sewer Manhole, Box Base		EA	$ 18,950.00	=	$ -		$ -	*
Storm Sewer Manhole, Slab Base		EA	$ 9,314.00	=	$ -		$ -	*
Geotextile (Erosion Control)		SY	$ 6.00	=	$ -		$ -	*
Rip Rap, d50 size from 6" to 24"		Tons	$ 102.00	=	$ -		$ -	*
Rip Rap, Grouted		Tons	$ 136.00	=	$ -		$ -	*
Drainage Channel Construction, Size (W x H)		LF		=	$ -		$ -	*
Drainage Channel Lining, Concrete		CY	$ 815.00	=	$ -		$ -	*
Drainage Channel Lining, Rip Rap		CY	$ 234.00	=	$ -		$ -	*
Drainage Channel Lining, Grass		AC	$ 2,100.00	=	$ -		$ -	*
Permanent Drainage Channel Lining or Roadside Ditch TRM		SY	$ 13.00	=	$ -		$ -	*
				=	$ -		$ -	*
				=	$ -		$ -	*
				=	$ -		$ -	*
[insert items not listed but part of construction plans]				=	$ -		$ -	*
* - Subject to defect warranty financial assurance. A minimum of 20% shall be retained until final acceptance (MAXIMUM OF 80% COMPLETE ALLOWED)		**Section 2 Subtotal**		**=**	**$ 2,051,044.00**		**$ 2,051,044.00**	*

PROJECT INFORMATION		
Project Name: HILLPOINTE PETERSON	**Date: 2026-03-03**	**PCD File No. PPR####**

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction) % Complete	(with Pre-Plat Construction) Remaining
SECTION 3 - COMMON DEVELOPMENT IMPROVEMENTS (Private or District and NOT Maintained by EPC)**							
ROADWAY IMPROVEMENTS							
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
STORM DRAIN IMPROVEMENTS (Exception: Permanent Pond/BMP shall be itemized under Section 1)							
Include storm, water and sanitary improvements in this section				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
				=	$ -		$ -
WATER SYSTEM IMPROVEMENTS							
Water Main Pipe (PVC), Size 8"		LF	$ 90.00	=	$ -		$ -
Water Main Pipe (Ductile Iron), Size 8"		LF	$ 105.00	=	$ -		$ -
Gate Valves, 8"		EA	$ 2,599.00	=	$ -		$ -
Fire Hydrant Assembly, w/ all valves		EA	$ 9,228.00	=	$ -		$ -
Water Service Line Installation, inc. tap and valves		EA	$ 1,852.00	=	$ -		$ -
Fire Cistern Installation, complete		EA		=	$ -		$ -
				=	$ -		$ -
[insert items not listed but part of construction plans]				=	$ -		$ -
SANITARY SEWER IMPROVEMENTS							
Sewer Main Pipe (PVC), Size 8"		LF	$ 90.00	=	$ -		$ -
Sanitary Sewer Manhole, Depth < 15 feet		EA	$ 6,136.00	=	$ -		$ -
Sanitary Service Line Installation, complete		EA	$ 1,962.00	=	$ -		$ -
Sanitary Sewer Lift Station, complete		EA		=	$ -		$ -
				=	$ -		$ -
[insert items not listed but part of construction plans]				=	$ -		$ -
LANDSCAPING IMPROVEMENTS (For subdivision specific condition of approval, or PUD)							
		EA		=	$ -		$ -
		EA		=	$ -		$ -
		EA		=	$ -		$ -
		EA		=	$ -		$ -
		EA		=	$ -		$ -
** - Section 3 is not subject to defect warranty requirements		**Section 3 Subtotal**		=	$ -		$ -
AS-BUILT PLANS (Public Improvements inc. Permanent WQCV BMPs)		LS		=	$ -		$ -
POND/BMP CERTIFICATION (inc. elevations and volume calculations)		LS		=	$ -		$ -

Add cost for As-Built Plans & Pond/BMP Certification Letter.

Total Construction Financial Assurance **$ 2,295,606.25**
(Sum of all section subtotals plus as-builts and pond/BMP certification)

Total Remaining Construction Financial Assurance (with Pre-Plat Construction) **$ 2,295,606.25**
(Sum of all section totals less credit for items complete plus as-builts and pond/BMP certification)

Total Defect Warranty Financial Assurance **$ 453,852.20**
(20% of all items identified as (*). To be collateralized at time of preliminary acceptance)

Approvals

I hereby certify that this is an accurate and complete estimate of costs for the work as shown on the Grading and Erosion Control Plan and Construction Drawings associated with the Project.

Engineer (P.E. Seal Required)

Approved by Owner / Applicant — Date

Approved by El Paso County Engineer / ECM Administrator — Date

TRAFFIC IMPACT STUDY

For

Please be sure to address any CDOT comments on this project.

Hillpointe Apartments at Peterson
Colorado Springs, Colorado
P265

September 2025
Revised April 2026

Prepared for:

Hillpointe, LLC
3773 Cherry Creek Drive North, Suite 801 East Tower
Denver, CO 80209

Prepared by:

SM ROCHA, LLC
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Project Manager:
Megan Bock, EIT

Project Engineer:
Leo Ornelas Olmos, EIT

Engineer in Responsible Charge:
Fred Lantz, PE

25-052407

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



_____ 04/13/2026

Fred Lantz, P.E. #23410 Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

_____ _____

Brendan Parsa *Date*
Hillpointe, LLC
3773 Cherry Creek Drive North, Suite 801 – East Tower
Denver, Colorado 80209

Table of Contents

I. Introduction 1

Project Overview 1
Study Area Boundaries 1
Site Description 1
Existing and Committed Surface Transportation Network 5

II. Existing Traffic Conditions 7

Peak Hour Intersection Levels of Service – Existing Traffic 11
Existing Traffic Analysis Results 12

III. Future Traffic Conditions Without Proposed Development 14

Peak Hour Intersection Levels of Service – Background Traffic 21
Background Traffic Analysis Results – Year 2027 23
Background Traffic Analysis Results – Year 2045 26

IV. Proposed Project Traffic 28

Trip Generation 28
Adjustments to Trip Generation Rates 29
Trip Distribution 29
Trip Assignment 29

V. Future Traffic Conditions With Proposed Development 32

Total Traffic Auxiliary Lane Analysis 32
Peak Hour Intersection Levels of Service – Total Traffic 40
Total Traffic Analysis Results Upon Development Build-Out 43

VI. Project Impacts 45

Queue Length Analysis 45
Development Impacts 48
Recommended Improvements 48

VII. Conclusion 49

List of Figures

Figure 1 – Location 3
Figure 2 – Site Plan 4
Figure 3 – Existing Traffic 8
Figure 4 – Existing Traffic Volumes 9
Figure 5 – Existing Traffic Intersection Geometry 10
Figure 6 – Background Traffic – Year 2027 15
Figure 7 – Background Traffic Volumes – Year 2027 16
Figure 8 – Background Traffic Intersection Geometry – Year 2027 17
Figure 9 – Background Traffic – Year 2045 18
Figure 10 – Background Traffic Volumes – Year 2045 19
Figure 11 – Background Traffic Intersection Geometry – Year 2045 20
Figure 12 – Site Distribution 30
Figure 13 – Site-Generated Assignment 31
Figure 14 – Total Traffic – Year 2027 34
Figure 15 – Total Traffic Volumes – Year 2027 35
Figure 16 – Total Traffic Intersection Geometry – Year 2027 36
Figure 17 – Total Traffic – Year 2045 37
Figure 18 – Total Traffic Volumes – Year 2045 38
Figure 19 – Total Traffic Intersection Geometry – Year 2045 39

List of Tables

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic 12
Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2027 22
Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2045 25
Table 4 – Trip Generation Rates 28
Table 5 – Trip Generation Summary 28
Table 6 – Intersection Capacity Analysis Summary – Total Traffic – Year 2027 41
Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2045 42
Table 8 – Turn Lane Queues and Storage Requirements – Year 2045 46

Appendices

APPENDIX A TRAFFIC COUNT DATA
APPENDIX B LEVEL OF SERVICE DEFINITIONS
APPENDIX C CAPACITY WORKSHEETS
APPENDIX D EXISTING ADJACENT COMMERCIAL TRIP GENERATION ESTIMATES

I. Introduction

Project Overview

This traffic impact study is provided as a planning document and addresses the capacity, geometric, and control requirements associated with the development entitled Hillpointe Apartments at Peterson.

This traffic impact study has been revised to address County review comments made to the September 2025 traffic study regarding consideration for updated intersection geometry and control types as well as various other comments throughout. This study has also been updated to reflect the most recent site plan prepared for the development.

This proposed residential development consists of a multifamily housing community. The development is located near the northeast corner of the intersection of U.S. Highway 24 and Peterson Road in Colorado Springs, Colorado.

Study Area Boundaries

The study area to be examined in this analysis encompasses the segment of U.S. Highway 24 from its interchange with State Highway 21 east to Marksheffel Road, as well as the intersections of Peterson Road with Galley Road and Panamint Court, the intersection of Meadowbrook Parkway and Newt Drive, and includes proposed site accesses.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is currently vacant and surrounded by open space and a mix of residential and commercial land uses.

The proposed development is understood to entail the new construction of a total of 300 multifamily dwelling units and associated amenities and parking.

Proposed access to the development is provided via one full-movement access onto the future extension of Meadowbrook Parkway (referred to as Site Access). This access is anticipated to be shared with the future adjacent Cimarron Hills development. Additionally, it is noted that the existing intersection of Peterson Road with Panamint Court will be converted to a right-in/right-out intersection and serve as an emergency-only access for the proposed development.

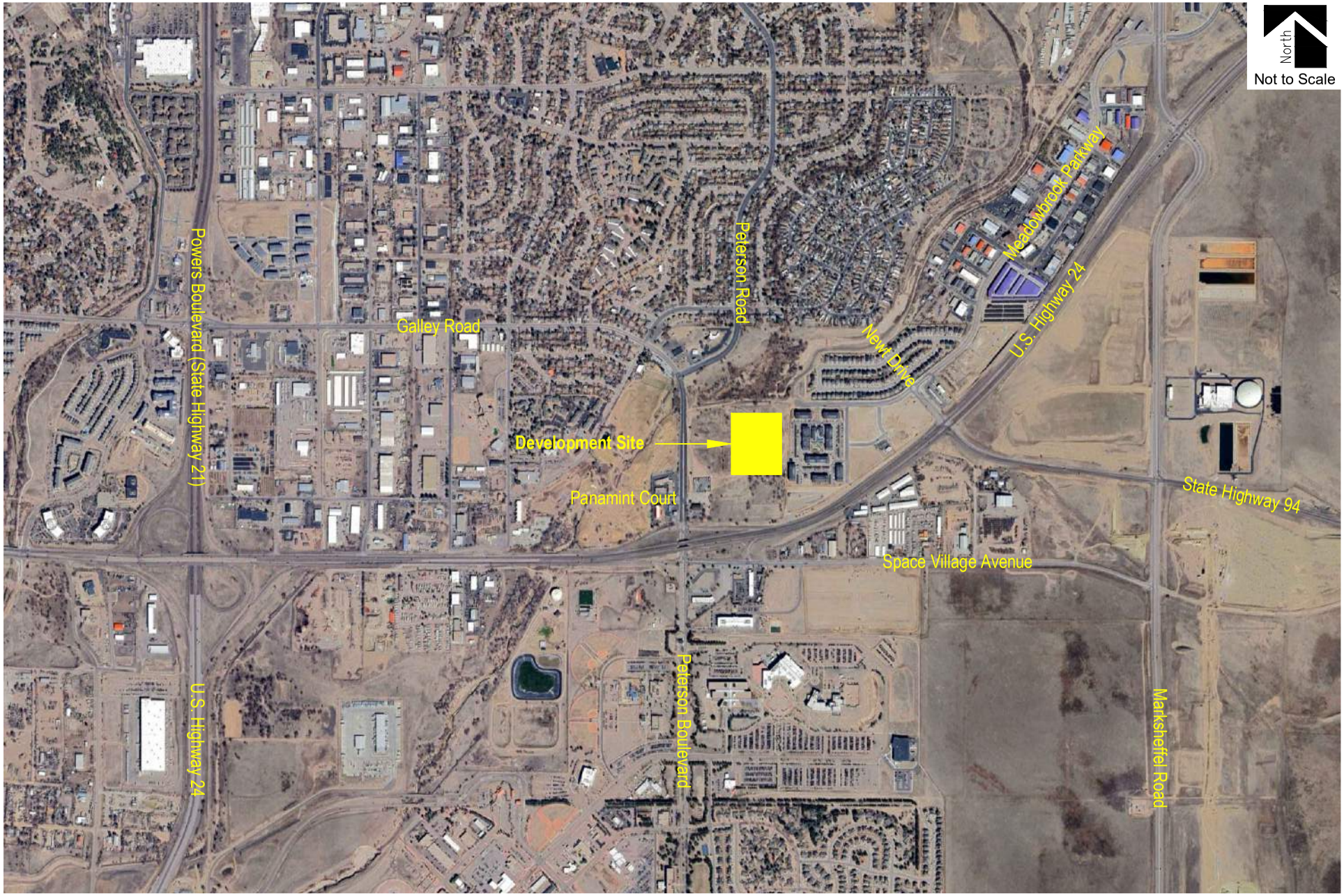
Fire Dept. needs to approve this. How will this be enforced as emergency-only access?

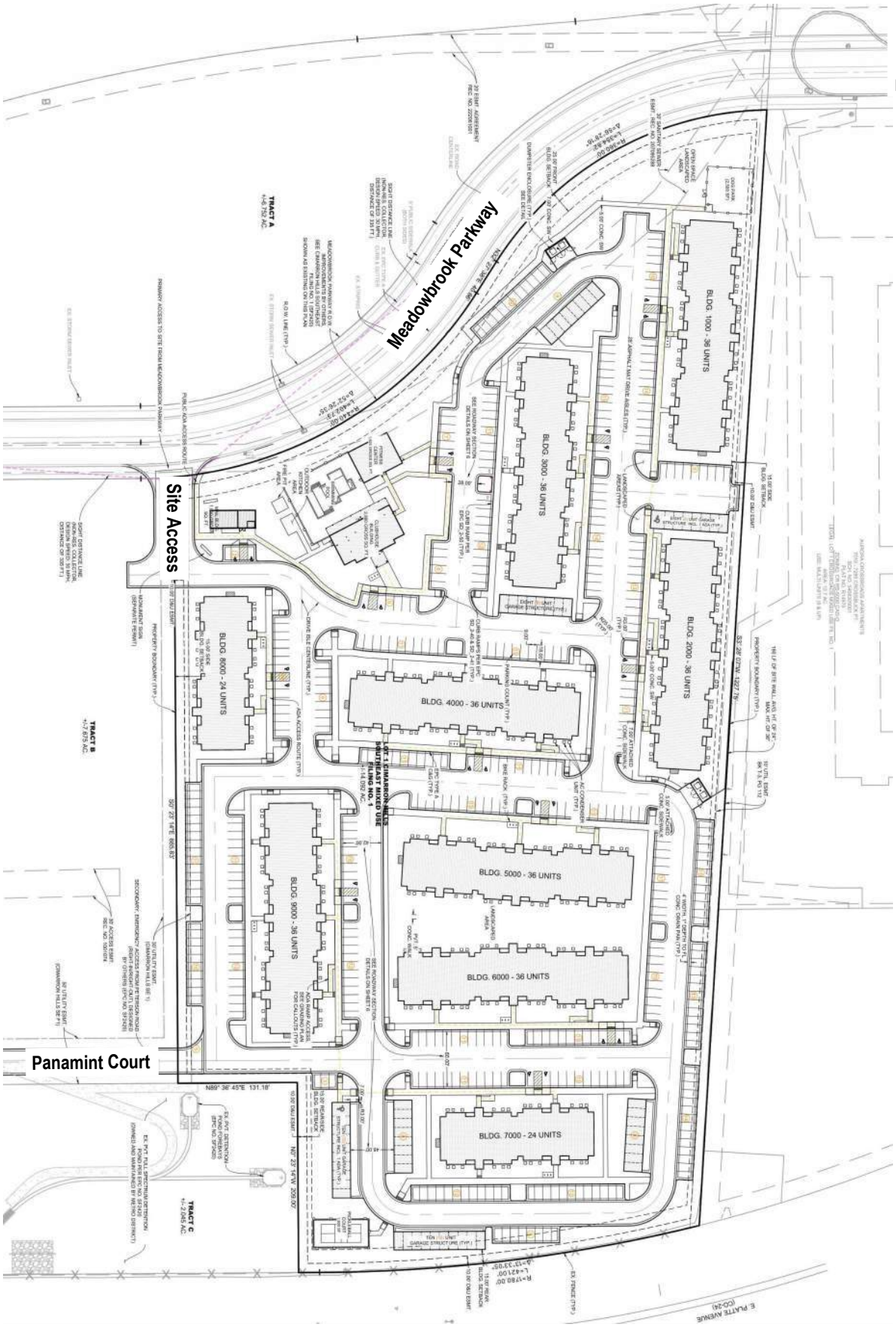
Who is responsible for making this happen?

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2027.

General site and access locations are shown on Figure 1.

A site plan, as prepared by HR Green, Inc., is shown in Figure 2. This plan is provided for illustrative purposes only.


North
Not to Scale
Powers Boulevard (State Highway 21)
Galley Road
Peterson Road
Meadowbrook Parkway
Newt Drive
U.S. Highway 24
Development Site
Panamint Court
State Highway 94
Space Village Avenue
U.S. Highway 24
Peterson Boulevard
Marksheffel Road


North
Not to Scale
Meadowbrook Parkway
Site Access
Panamint Court
BLDG. 1000 - 36 UNITS
BLDG. 2000 - 36 UNITS
BLDG. 3000 - 36 UNITS
BLDG. 4000 - 36 UNITS
BLDG. 5000 - 36 UNITS
BLDG. 6000 - 36 UNITS
BLDG. 7000 - 24 UNITS
BLDG. 8000 - 24 UNITS
BLDG. 9000 - 36 UNITS
TRACT A
+/- 6.750 AC.
TRACT B
+/- 7.875 AC.
TRACT C
+/- 2.045 AC.
LOT 1 CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1
+/- 4.092 AC.
E. PLATTE AVENUE (CO-24)

This is being converted to a diamond with roundabout intersections. Site plans and study need to reflect this

Existing and Committed Surface Transportation Network

Within the study area, regional access to the proposed development area is provided by way of U.S. Highway 24, State Highway 21, State Highway 94, Marksheffel Road, Peterson Road, Galley Road, Space Village Avenue, and Newt Drive, while local access is provided via Meadowbrook Parkway. A brief description of each roadway, based on the City of Colorado Springs Major Thoroughfare Plan (MTP)[1] and Traffic Criteria Manual (TCM)[2], as well as El Paso County's Major Transportation Corridors Plan (MTCP)[3], is provided below:

U.S. Highway 24 at State Highway 21 is an existing cloverleaf interchange with State Highway 21 travel below U.S. Highway 24. The interchange is within The Colorado Department of Transportation (CDOT) jurisdiction. On / off ramps have varying posted advisory speed limits ranging from 30 to 50 MPH. Each interchange ramp has one travel lane with a combination of shared and exclusive turn lanes at their respective intersections within the study area.

U.S. Highway 24 at Peterson Road is an existing diamond interchange with Peterson Road travel below U.S. Highway 24. The interchange is within CDOT jurisdiction. Eastbound and westbound on / off ramps have a posted advisory speed limit of 15 MPH. Each interchange ramp has one travel lane with a combination of shared and exclusive turn lanes at Peterson Road.

State Highway 94 is an east-west expressway having four through lanes (two lanes in each direction) with exclusive turn lanes at the intersection within the study area. CDOT categorizes the adjacent segment of State Highway 94 as an Expressway, Major Bypass (E-X) and provides a posted speed limit of 65 MPH.

Marksheffel Road is a north-south principal arterial roadway having four through lanes (two lanes in each direction) with exclusive turn lanes at the intersection within the study area. Marksheffel Road provides a posted speed limit of 55 MPH.

Peterson Road is a north-south minor arterial roadway having four through lanes (two lanes in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. Peterson Road provides a posted speed limit of 30 MPH.

Galley Road is an east-west minor arterial roadway supporting a three-lane cross-section (one through lane in each direction with a shared center two-way left-turn lane). Galley Road has exclusive turn lanes at the intersection within the study area and provides a posted speed limit of 30 MPH.

[1] Major Thoroughfare Plan, City of Colorado Springs, May 2025.
[2] Engineering Criteria Manual, Section III: Traffic Criteria Manual, City of Colorado Springs City Engineering, July 2010.
[3] El Paso County Major Transportation Corridors Plan, Felsburg Holt & Ullevig, July 18, 2024.

Space Village Avenue is an east-west minor arterial roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Space Village Avenue provides a posted speed limit of 35 MPH.

Newt Drive is a north-south minor collector roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. Newt Drive is assumed to provide a speed limit of 30 MPH.

Meadowbrook Parkway is an east-west major collector roadway having two through lanes (one lane in each direction) a combination of shared and exclusive turn lanes at the intersections within the study area. Meadow Brook Parkway provides a posted speed limit of 35 MPH.

major collector per EPC MTCP between US 24 and Meadowbrook.

In review of the City's ConnectCOS[4] project list, it is suggested that a long-range transportation plan is currently being evaluated for the U.S. Highway 24 corridor from Interstate 25 east to Falcon. It is therefore unknown at this time what improvements are being planned for adjacent to the proposed development. As such, no improvements to U.S. Highway 24 within the study area were included within this analysis.

In coordination with County and City Staff, it is understood that the intersections of Peterson Road with the U.S. Highway 24 eastbound and westbound on/off ramps are currently under construction to be converted to roundabouts. These improvements are assumed to be completed by Year 2027.

No regional or specific improvements for other study roadways are known to be planned or committed at this time. The study area roadways appear to be built to their ultimate cross-sections.

[4] ConnectCOS, City of Colorado Springs, March 2023.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the following intersections:

- U.S. Highway 24 / Marksheffel Road
- U.S. Highway 24 / State Highway 94
- U.S. Highway 24 eastbound ramps / Space Village Avenue
- U.S. Highway 24 westbound ramps / Peterson Road
- Peterson Road / Space Village Avenue / U.S. Highway 24 eastbound off ramp
- Peterson Road / Galley Road
- Meadowbrook Parkway / Newt Drive
- State Highway 21 northbound ramps / U.S. Highway 24
- State Highway 21 southbound ramps / U.S. Highway 24

Should be using the 12th Edition

Average daily traffic (ADT) volumes were collected over a 24-hour period on Peterson Road.

Counts were collected on Thursday, May 15, 2025 with AM peak hour counts being collected during the period of 7:00 a.m. to 9:00 a.m. and PM peak hour counts being collected during the period of 4:00 p.m. to 6:00 p.m.

Peak hour traffic counts shown for the Peterson Road and Panamint Court intersection were estimated using standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition. ITE land use codes 320 (Motel), 822 (Strip Retail Plaza (<40k)), and 945 (Convenience Store/Gas Station) were used for estimating trip generation because of their best fit to the existing land use descriptions, provided by the County's assessor information. Estimated trip generation for the existing land uses is provided for reference in Appendix D.

The study area intersections and ADT volumes are shown on Figure 3. Newly collected and estimated intersection counts are shown in Figure 4. Existing intersection geometry is shown in Figure 5. Traffic count data is included for reference in Appendix A.

Existing signal timing parameters for the intersection of Peterson Road with Space Village Avenue and the U.S. Highway 24 eastbound off ramp were referenced from the Space Village Filing No. 4 traffic study[5]. Signal timing parameters for all other signalized study intersections were assumed based on the existing signal head configuration and allowable movements. Timings were used throughout this study to the best extent possible in order to remain consistent with typical County and CDOT signal coordination plans.

[5] Space Village Filing No. 4: Traffic Impact Study, SM ROCHA, LLC, June 2023.

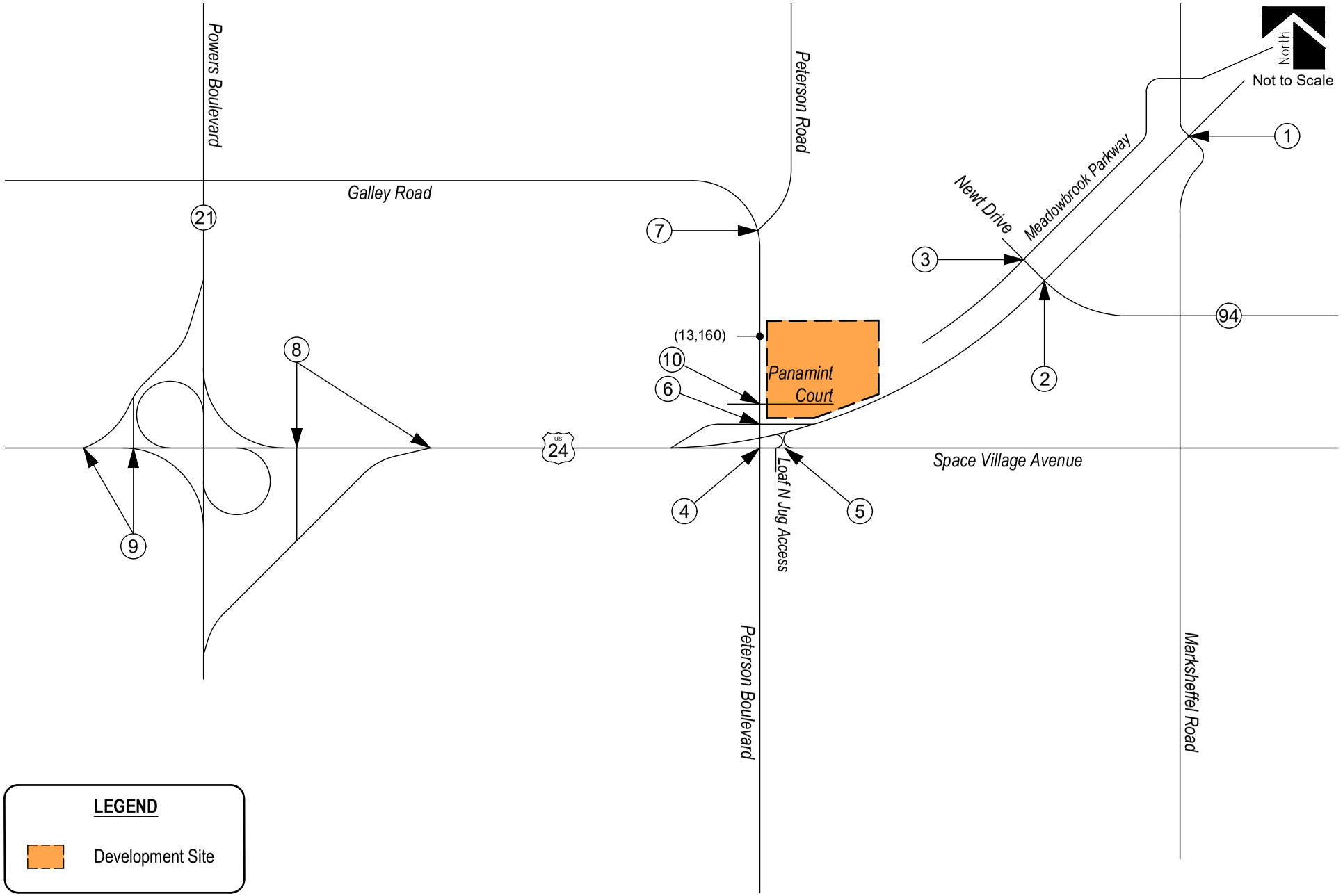
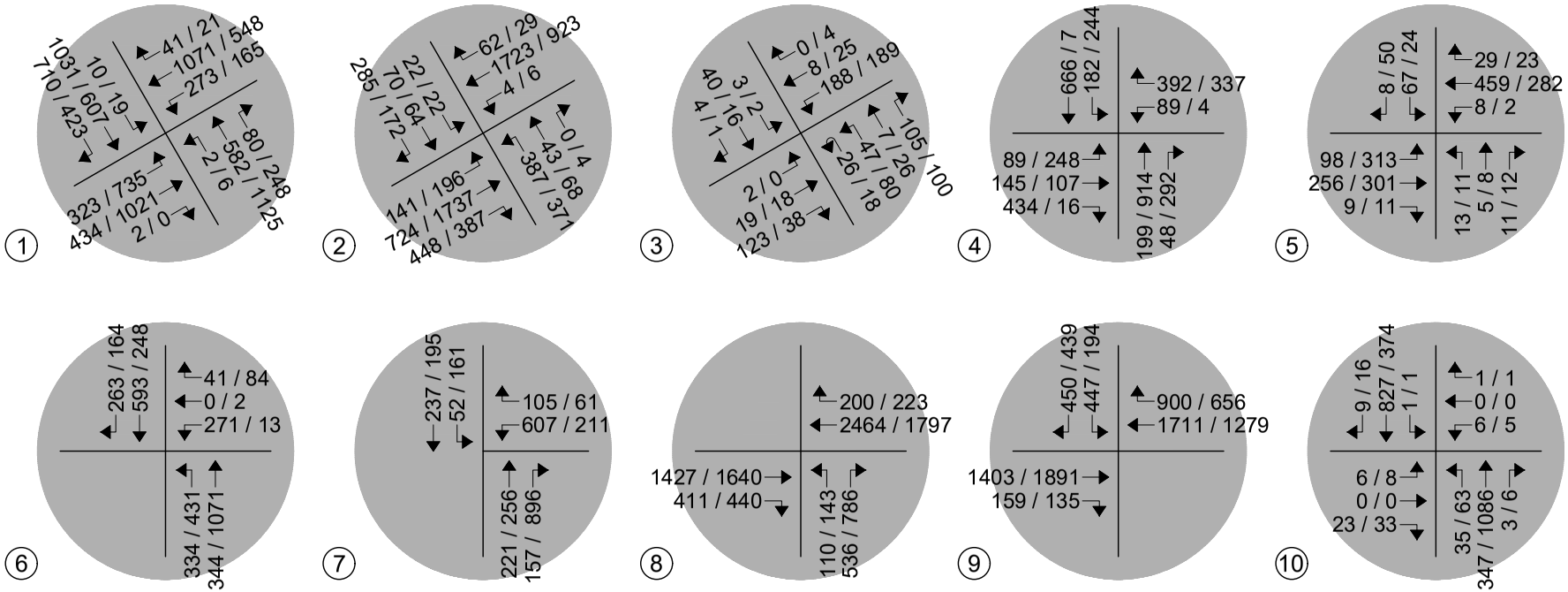


Figure 3
EXISTING TRAFFIC
(ADT) : Average Daily Traffic

North

Not to Scale



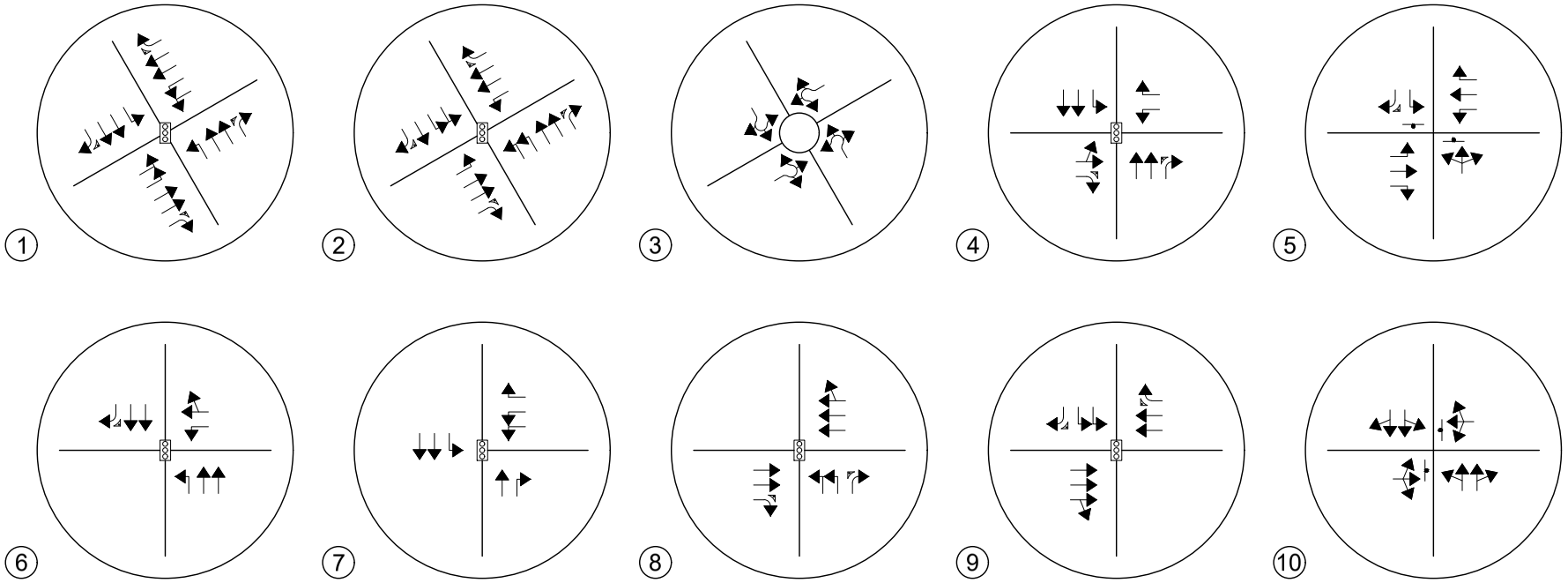
LEGEND

Study Intersection Volumes

Figure 4
EXISTING TRAFFIC
Volumes
AM / PM Peak Hour

North

Not to Scale



LEGEND

Study Intersection
Lane Geometry

Figure 5
EXISTING TRAFFIC
Intersection Geometry

Peak Hour Intersection Levels of Service – Existing Traffic

The Signalized, Unsignalized, and Roundabout Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM), 7th Edition, by the Transportation Research Board and as incorporated into the SYNCHRO computer program, were used to analyze the study intersections for existing and future traffic conditions. These nationally accepted techniques allow for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement and based on the volume to capacity ratio and control delay for each approach for roundabouts.

Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix C.

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
U.S. Highway 24 / Marksheffel Road (Signalized)	D (38.3)	D (44.2)
U.S. Highway 24 / State Highway 94 (Signalized)	C (32.8)	C (28.5)
Peterson Road / Space Village Avenue (Signalized)	C (28.0)	D (44.0)
Peterson Road / U.S. Highway 24 WB On/Off Ramps (Signalized)	B (14.0)	A (5.9)
Peterson Road / Galley Road (Signalized)	B (19.6)	B (19.6)
U.S. Highway 24 / State Highway 21 NB On/Off Ramps (Signalized)	A (5.3)	A (4.1)
U.S. Highway 24 / State Highway 21 SB On/Off Ramps (Signalized)	B (10.2)	A (5.6)
Meadowbrook Parkway / Newt Drive (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Space Village Avenue / U.S. Highway 24 EB On/Off Ramps (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	A
Northbound Left, Through and Right	C	E
Southbound Left and Through	E	F
Peterson Road / Panamint Court (Stop-Controlled)		
Eastbound Left, Through and Right	C	B
Westbound Left, Through and Right	C	D
Northbound Left and Through	B	A
Southbound Left and Through	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Roundabout Intersection: Level of Service
Stop-Controlled Intersection: Level of Service

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the signalized intersection of U.S. Highway 24 with Marksheffel Road has overall operations at LOS D during the morning and afternoon peak traffic hours.

The signalized intersection of U.S. Highway 24 with State Highway 94 has overall operations at LOS C during the morning and afternoon peak traffic hours.

The signalized intersection of Peterson Road with Space Village Avenue has overall operations at LOS C during the morning peak traffic hour and LOS D during the afternoon peak traffic hour.

The signalized intersection of Peterson Road with U.S. Highway 24 WB On/Off Ramps has overall operations at LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The signalized intersection of Peterson Road with Galley Road has overall operations at LOS B during the morning and afternoon peak traffic hours.

The signalized intersection of U.S. Highway 24 with State Highway 21 NB On/Off Ramps has overall operations at LOS A during the morning and afternoon peak traffic hours.

The signalized intersection of U.S. Highway 24 with State Highway 21 SB On/Off Ramps has overall operations at LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The roundabout-controlled intersection of Meadowbrook Parkway with Newt Drive has turn movement operations at LOS A during the morning and afternoon peak traffic hours.

The stop-controlled intersection of Space Village Avenue with U.S. Highway 24 EB On/Off Ramps has turn movement operations at or better than LOS C during the morning peak traffic hour and LOS A during the afternoon peak traffic hour. Exceptions include the northbound turning movements, which operate at LOS E during the PM peak traffic hour and the southbound left and through movements, which operate at LOS E and LOS F during the morning and afternoon peak hours, respectively. The LOS E and LOS F operations are attributed to the through traffic volume along Space Village Avenue and the stop-controlled nature of the intersection.

The stop-controlled intersection of Peterson Road with Panamint Court has turn movement operations at or better than LOS C during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. The upstream signal control on Space Village Avenue may tend to create additional gaps in the traffic stream for turning movements at U.S. Highway 24 EB On/Off Ramps and may provide mitigation to the LOS E and F operations projected during both peak traffic hours.

What are the projected 95th percentile queue lengths?

III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

To account for projected increases in background traffic for Years 2027 and 2045, a compounded annual growth rate was determined using historical traffic data for the surrounding area provided by CDOT's Online Transportation Information System (OTIS) along the adjacent segment of U.S. Highway 24 which anticipates a 20-year growth rate between one and two percent. Therefore, in order to provide for a conservative analysis, a growth rate of two percent was applied to existing traffic volumes. This annual growth rate is also consistent with regional growth projections and the level of in-fill development expected within the area.

Pursuant to the proposed and committed area roadway improvements discussed in Section I, Year 2027 background traffic conditions assume the conversion of the Peterson Road intersections with the U.S. Highway 24 eastbound and westbound on/off ramps to roundabout control. Year 2045 assumes existing signal timing parameters for the signalized study intersections with optimized intersection splits in effort to better long-term intersection performance.

To account for projected traffic from adjacent developments not yet built, trip generations from the Cimarron Hills Southeast Filing No. 1 traffic study[6] were added to background traffic volumes. Pursuant to the adjacent traffic study, the future extension of Meadowbrook Parkway east to Peterson Road was also assumed under Year 2027 background traffic conditions.

The study area intersections and projected short-term background ADT volumes are shown on Figure 6. Projected background intersection traffic volumes and intersection geometry for Year 2027 are shown in Figure 7 and Figure 8, respectively.

Study area intersections and projected long-term background ADT volumes are shown in Figure 9. Projected background intersection traffic volumes and intersection geometry for Year 2045 are shown in Figure 10 and Figure 11, respectively.

Please include these volumes in an appendix so it can be verified how they were included. Are Reagan Ranch traffic volumes and improvements included in horizon year analyses?

[6] Cimarron Hills Southeast Filing No. 1: Traffic Impact Study, Matrix Design Group, Inc., August 15, 2025.

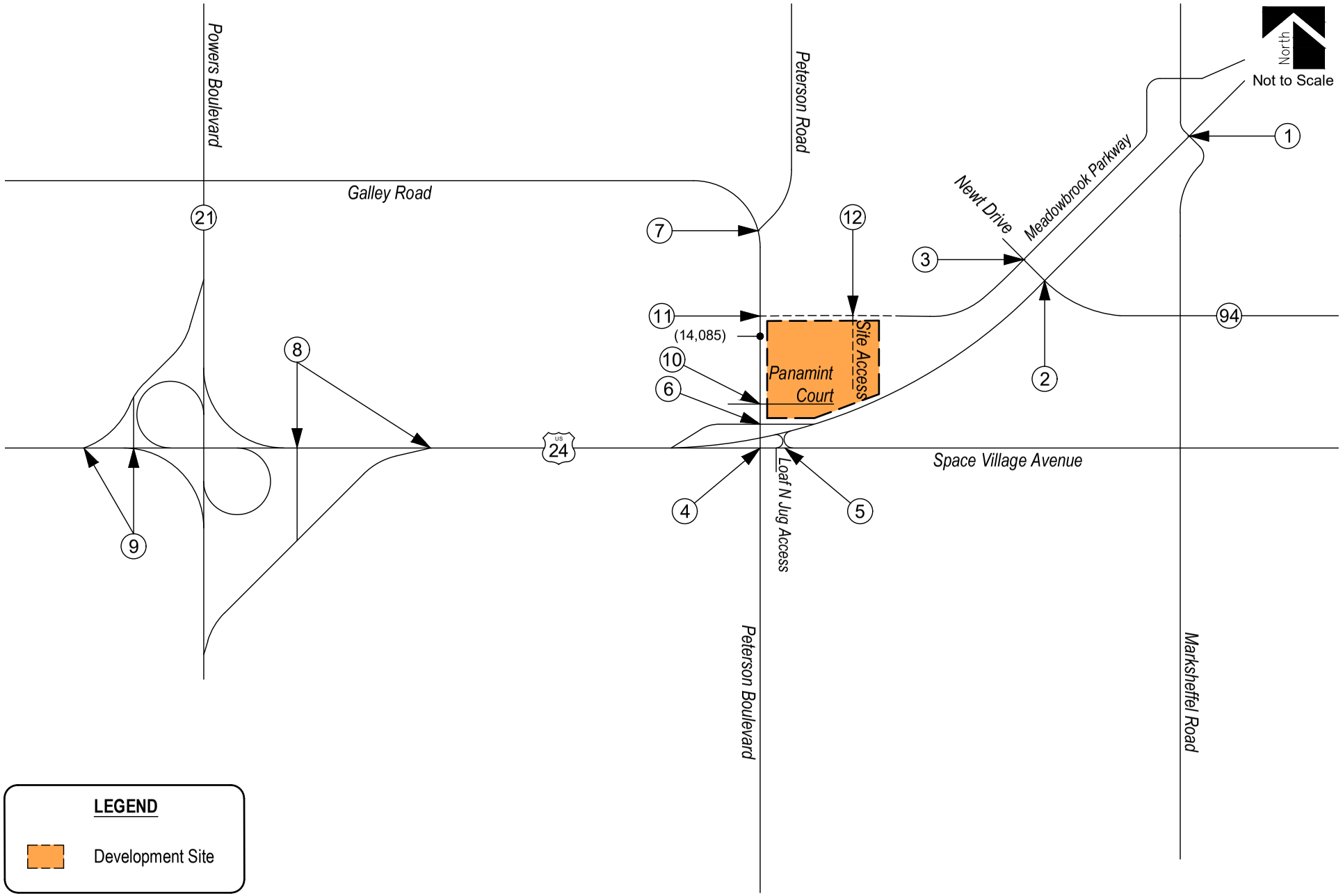


Figure 6
BACKGROUND TRAFFIC - YEAR 2027
(ADT) : Average Daily Traffic

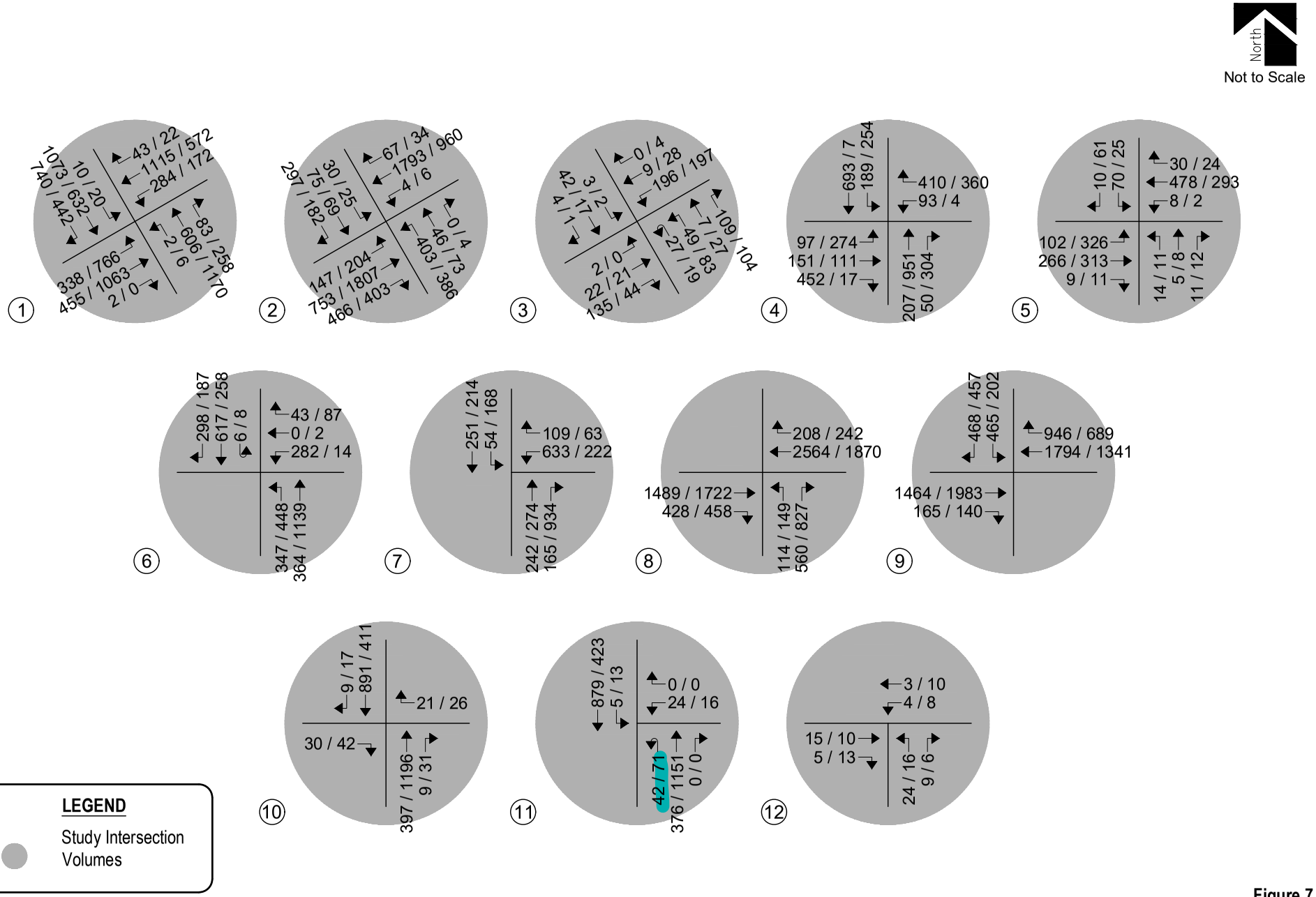


Figure 7
BACKGROUND TRAFFIC - YEAR 2027
Volumes
AM / PM Peak Hour

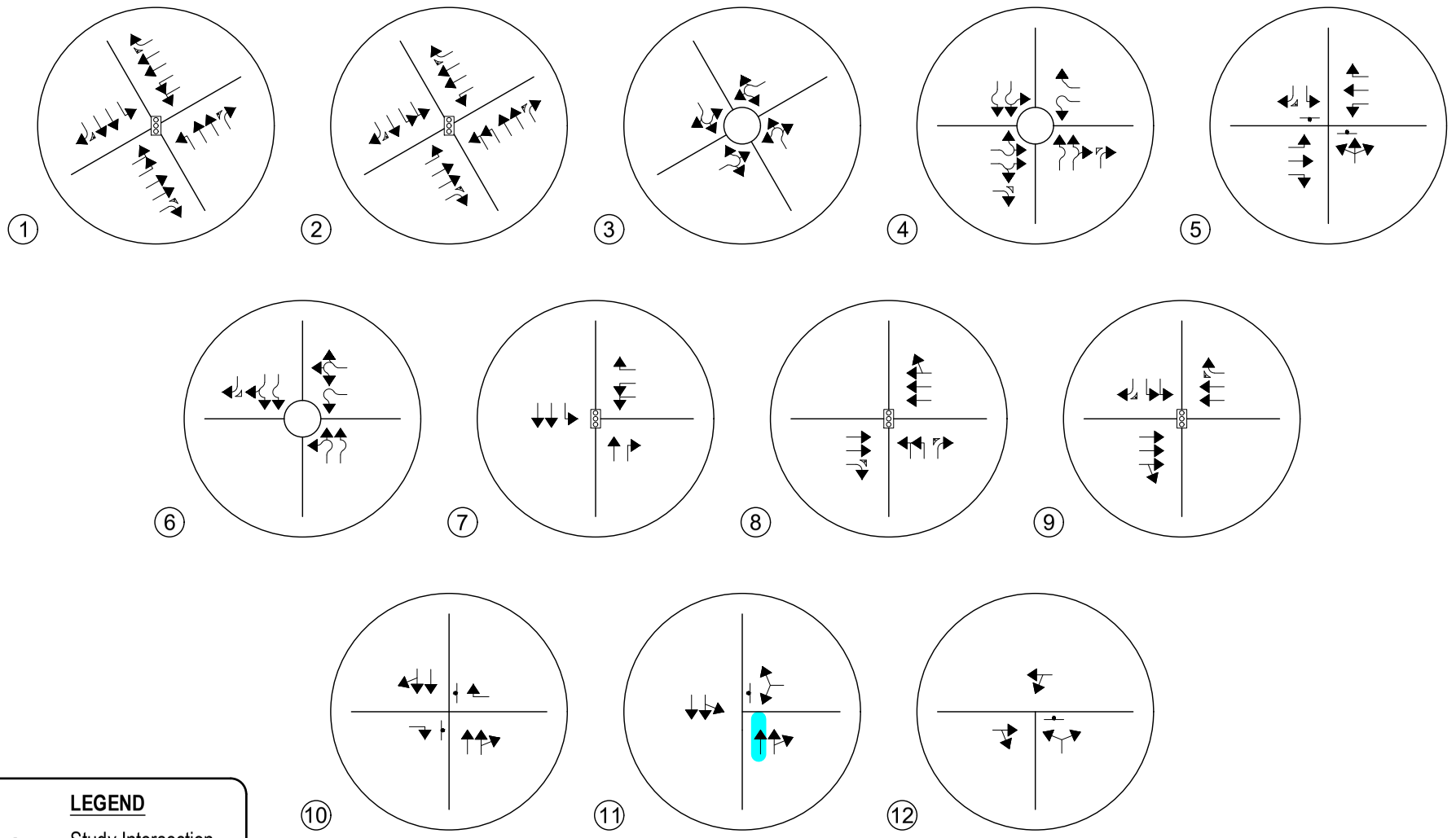


Figure 8
BACKGROUND TRAFFIC - YEAR 2027
Intersection Geometry

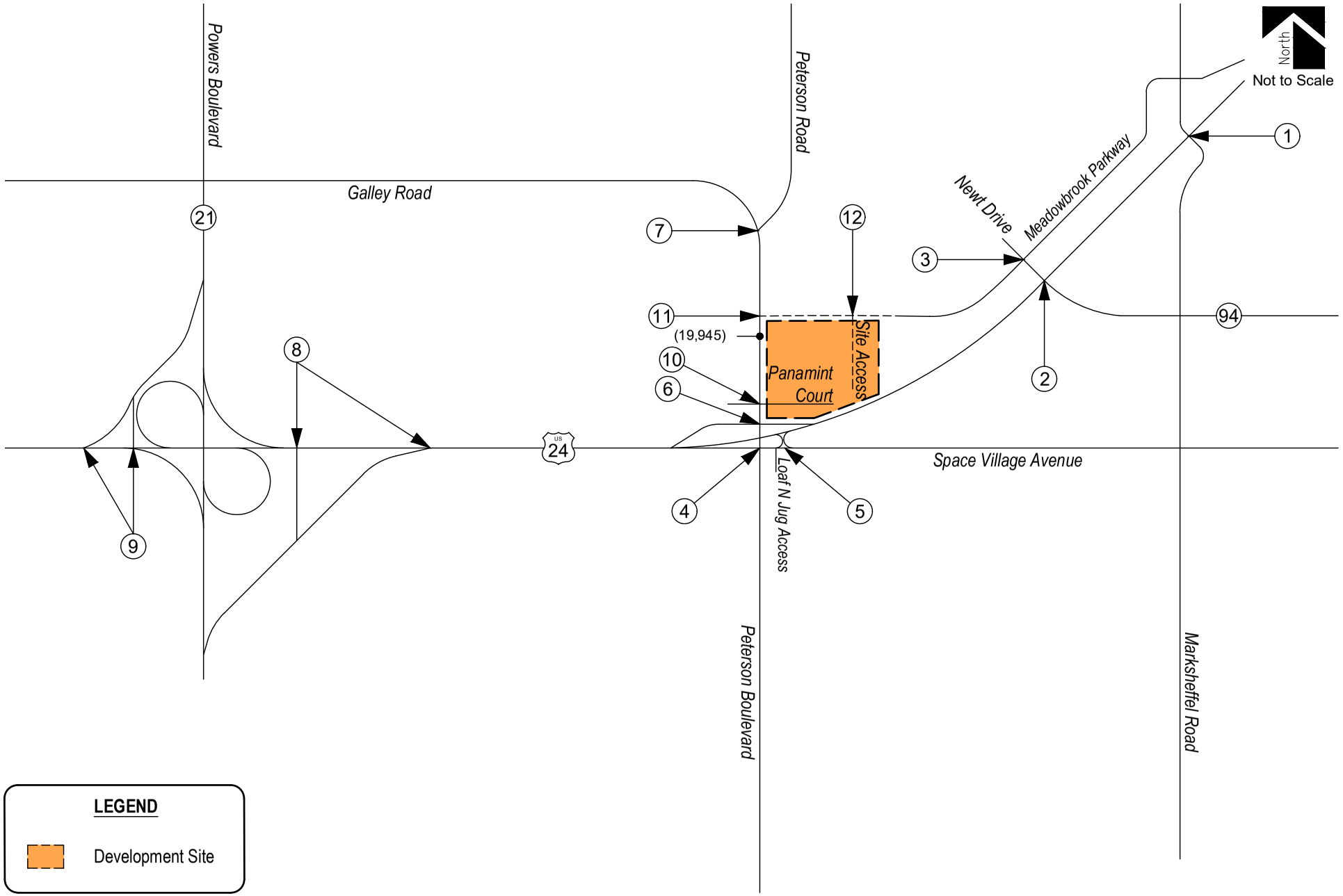


Figure 9
BACKGROUND TRAFFIC - YEAR 2045
(ADT) : Average Daily Traffic

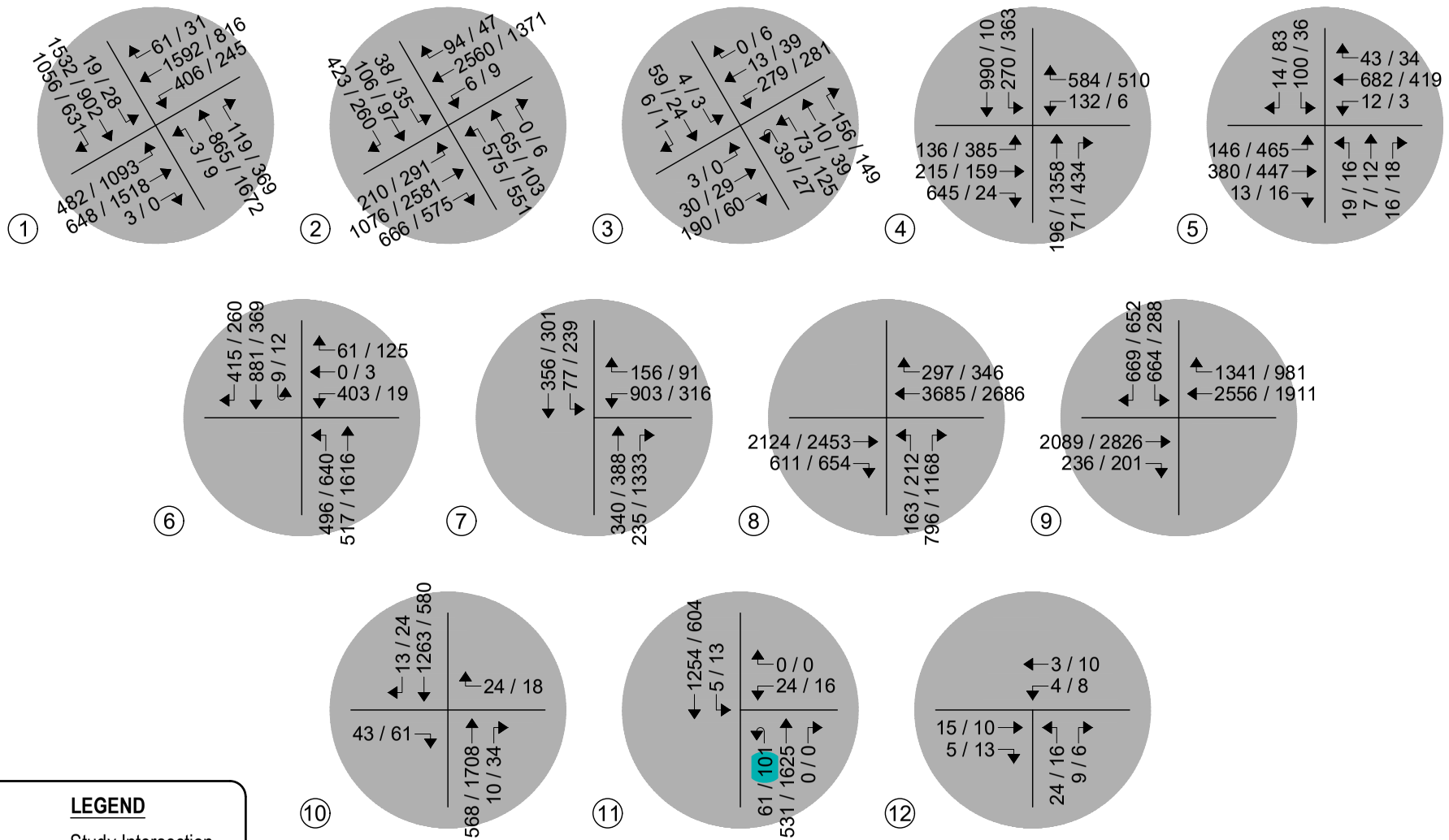


Figure 10
BACKGROUND TRAFFIC - YEAR 2045
Volumes
AM / PM Peak Hour

North

Not to Scale

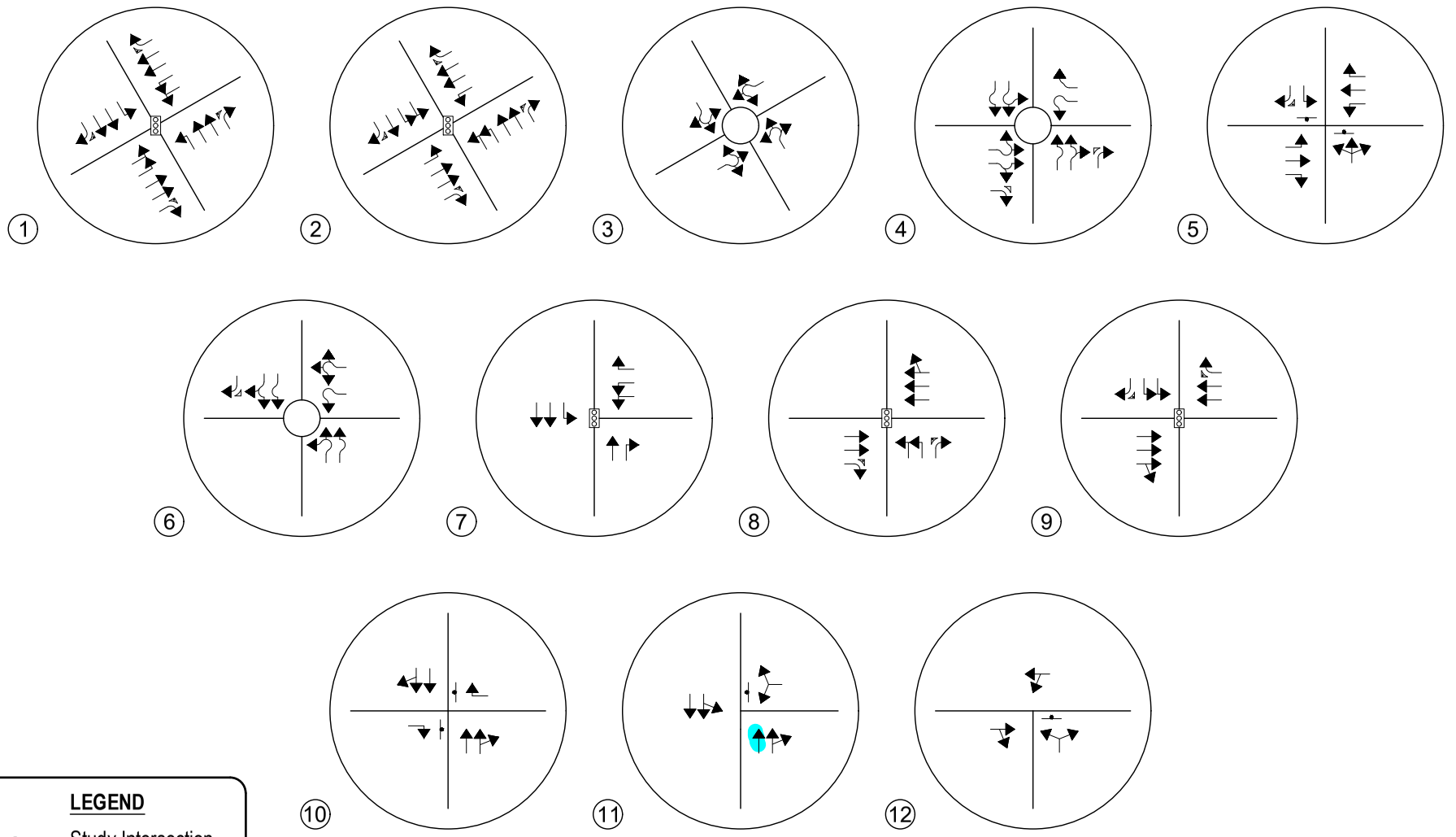


Figure 11
BACKGROUND TRAFFIC - YEAR 2045
Intersection Geometry

Peak Hour Intersection Levels of Service – Background Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2027 are listed in Table 2. Year 2045 operational results are summarized in Table 3.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2027

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
U.S. Highway 24 / Marksheffel Road (Signalized)	D (41.1)	D (48.4)
U.S. Highway 24 / State Highway 94 (Signalized)	D (36.8)	C (29.8)
Peterson Road / Galley Road (Signalized)	B (16.0)	B (19.2)
U.S. Highway 24 / State Highway 21 NB On/Off Ramps (Signalized)	A (5.4)	A (4.8)
U.S. Highway 24 / State Highway 21 SB On/Off Ramps (Signalized)	B (10.6)	A (5.7)
Meadowbrook Parkway / Newt Drive (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Peterson Road / Space Village Avenue (Roundabout)		
Eastbound Left and Through	B	A
Eastbound Through and Right	A	A
Eastbound Right	A	A
Westbound Left	A	A
Westbound Right	A	F
Northbound Through	A	C
Northbound Through and Right	A	C
Northbound Right	A	A
Southbound Left and Through	A	A
Southbound Through	A	A
Peterson Road / U.S. Highway 24 WB On/Off Ramps (Roundabout)		
Westbound Left	A	B
Westbound Left, Through, and Right	A	C
Northbound Left and Through	A	B
Northbound Through	A	B
Southbound Left and Through	B	A
Southbound Right	B	A
Space Village Avenue / U.S. Highway 24 EB On/Off Ramps (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	A
Northbound Left, Through and Right	C	E
Southbound Left and Through	E	F
Peterson Road / Panamint Court (Stop-Controlled)		
Eastbound Right	A	A
Westbound Right	A	B
Peterson Road / Meadowbrook Parkway (Stop-Controlled)		
Westbound Left and Right	C	F
Southbound Left and Through	A	B
Meadowbrook Parkway / Site Access (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Roundabout Intersection: Level of Service
Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2027

Year 2027 background traffic analysis indicates that the signalized intersection of U.S. Highway 24 with Marksheffel Road has overall operations at LOS D during the morning and afternoon peak traffic hours.

The signalized intersection of U.S. Highway 24 with State Highway 94 projects overall operations at LOS D during the morning peak traffic hour and LOS C during the afternoon peak traffic hour.

The signalized intersection of Peterson Road and Galley Road projects overall operations at LOS B during both peak traffic hours.

The signalized intersection of U.S. Highway 24 with State Highway 21 NB On/Off Ramps has overall operations at LOS A during the morning and afternoon peak traffic hours.

The signalized intersection of U.S. Highway 24 with State Highway 21 SB On/Off Ramps expects overall operations at LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The roundabout-controlled intersection of Meadowbrook Parkway with Newt Drive predicts turn movement operations at LOS A during the morning and afternoon peak traffic hours.

The roundabout-controlled intersection of Peterson Road with Space Village Avenue expects overall operations at LOS B or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the westbound right movement which projects LOS F operations during the afternoon peak traffic hour. The LOS F operations are attributed to the high through traffic volume along Peterson Road.

The roundabout-controlled intersection of Peterson Road with U.S. Highway 24 WB On/Off Ramps has overall operations at LOS B or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

The stop-controlled intersection of Space Village Avenue with U.S. Highway 24 EB On/Off Ramps projects operations at or better than LOS C during the morning peak traffic hour and LOS A during the afternoon peak traffic hour. Exceptions continue to include the northbound turning movements, which operate at LOS E during the PM peak traffic hour and the southbound left and through movement, which operates at LOS E and LOS F during the morning and afternoon peak hours, respectively. The LOS E and LOS F operations are attributed to the through traffic volume along Space Village Avenue and the stop-controlled nature of the intersection.

The stop-controlled intersection of Peterson Road with Panamint Court expects turn movement operations at LOS A during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour.

The stop-controlled intersection of Peterson Road with Meadowbrook Parkway expects turn movement operations at LOS C or better during the morning peak traffic hour and LOS B during the afternoon peak traffic hour. Exceptions include the westbound turning movement, which operates at LOS F during the PM peak traffic hour. The LOS F operation is attributed to the through traffic volume along Peterson Road and the stop-controlled nature of the intersection.

The stop-controlled intersection of Meadowbrook Parkway with the shared Site Access expects turn movement operations at LOS A during both peak traffic hours.

It is noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. The upstream signal control on Peterson Road may tend to create additional gaps in the traffic stream for turning movements at U.S. Highway 24 EB On/Off Ramps and Space Village Avenue and may provide mitigation to the LOS E and F operations projected during both peak traffic hours.

What are the queue lengths for the WB LTs? You also show a high volume of NB U-turns, but there is no deceleration lane/turn lane to accommodate them. Additionally, there typically needs to be 3 receiving lanes to accommodate a U-turn, but there are only 2 SB through lanes along Peterson Road. How will the NB to SB u-turns be accommodated? Will this intersection meet warrants for a traffic signal? Would a roundabout be a better option? A High-T? Regardless of LOS, introducing high volume LT and U-turn movements that are not signalized seems to be introducing additional crash risks. How will these additional risks be mitigated? Are the additional risks of the un-signalized u-turns higher than leaving the existing median opening at Panamint Court, where I assume the additional u-turns are coming from? Where are they coming from?

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2045

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
U.S. Highway 24 / Marksheffel Road (Signalized)	F (104.3)	F (136.4)
U.S. Highway 24 / State Highway 94 (Signalized)	F (132.8)	E (78.5)
Peterson Road / Galley Road (Signalized)	B (19.7)	E (68.8)
U.S. Highway 24 / State Highway 21 NB On/Off Ramps (Signalized)	B (18.0)	A (8.3)
U.S. Highway 24 / State Highway 21 SB On/Off Ramps (Signalized)	C (34.4)	A (8.4)
Meadowbrook Parkway / Newt Drive (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Peterson Road / Space Village Avenue (Roundabout)		
Eastbound Left and Through	D	A
Eastbound Through and Right	C	A
Eastbound Right	A	A
Westbound Left	A	C
Westbound Right	B	F
Northbound Through	A	F
Northbound Through and Right	A	F
Northbound Right	A	A
Southbound Left and Through	A	A
Southbound Through	A	A
Peterson Road / U.S. Highway 24 WB On/Off Ramps (Roundabout)		
Westbound Left	C	D
Westbound Left, Through, and Right	B	F
Northbound Left and Through	A	C
Northbound Through	A	D
Southbound Left and Through	E	A
Southbound Right	E	A
Space Village Avenue / U.S. Highway 24 EB On/Off Ramps (Stop-Controlled)		
Eastbound Left	B	B
Westbound Left	A	A
Northbound Left, Through and Right	E	F
Southbound Left and Through	F	F
Peterson Road / Panamint Court (Stop-Controlled)		
Eastbound Right	C	B
Westbound Right	B	C
Peterson Road / Meadowbrook Parkway (Stop-Controlled)		
Westbound Left and Right	F	F
Southbound Left and Through	A	C
Meadowbrook Parkway / Site Access (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Roundabout Intersection: Level of Service
Stop-Controlled Intersection: Level of Service

See Reagan Ranch traffic studies for proposed mitigations.

Background Traffic Analysis Results – Year 2045

By Year 2045 and without the proposed development, the signalized intersection of U.S. Highway 24 and Marksheffel Road experiences LOS F operations during the morning and afternoon peak traffic hours. The LOS F operations are mainly attributed to the high volume of conflicting northbound left and southbound through volumes.

The signalized intersection of U.S. Highway 24 with State Highway 94 projects overall operations at LOS F during the morning peak traffic hour and LOS E during the afternoon peak traffic hour. The LOS E and F operations are attributed to the overall high volume of vehicles traveling through the intersection causing many movements to be over capacity.

The signalized intersection of Peterson Road with Galley Road projects overall operations at LOS B during the morning peak traffic hour and LOS E during the afternoon peak traffic hour. The LOS E operation is attributed to the high volume of northbound right turning vehicles in the PM peak traffic hour. Construction of a free-flowing northbound channelized right turn lane is a potential solution to mitigate the LOS E operation projected.

The signalized intersection of U.S. Highway 24 with State Highway 21 NB On/Off Ramps has overall operations at LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The signalized intersection of U.S. Highway 24 with State Highway 21 SB On/Off Ramps expects overall operations at LOS C during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The roundabout-controlled intersection of Meadowbrook Parkway with Newt Drive projects turn movement operations at LOS A during the morning and afternoon peak traffic hours.

The roundabout-controlled intersection of Peterson Road with Space Village Avenue expects turn movement operations at LOS D or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the westbound right and northbound through and right movements which project LOS F operations during the PM peak traffic hour.

The roundabout-controlled intersection of Peterson Road with U.S. Highway 24 WB On/Off Ramps projects turn movement operations at LOS C or better during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour. Exceptions include the westbound left, through and right movement which projects LOS F operations during the PM peak traffic hour and the southbound movements which project LOS E operations during the AM peak traffic hour.

The stop-controlled intersection of Space Village Avenue with U.S. Highway 24 EB On/Off Ramps projects turn movement operations at or better than LOS B during both peak traffic hours. Exceptions continue to include the northbound and southbound turning movements, which operate at LOS E and F during their respective peak hours. The LOS E and F operations continue to be attributed to the through traffic volume along Space Village Avenue.

The stop-controlled intersection of Peterson Road with Panamint Court predicts turn movement operations at or better than LOS C during both peak traffic hours.

The stop-controlled intersection of Peterson Road with Meadowbrook Parkway expects turn movement operations at LOS A during the morning peak traffic hour and LOS C during the afternoon peak traffic hour. Exceptions include the westbound turning movement, which operates at LOS F during both peak traffic hours. The LOS F operations are attributed to the through traffic volume along Peterson Road and the stop-controlled nature of the intersection. It is noted that signalization of the intersection is a potential solution to mitigate the projected LOS F operations. However, due to the proximity of the Peterson Road and Galley Road intersection, and the County's intersection spacing requirements, signalization of this intersection may not be allowed.

please state if this will require a deviation request with subsequent applications

The stop-controlled intersection of Meadowbrook Parkway with the shared Site A movement operations at LOS A during both peak traffic hours

It is again noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. The upstream signal control on Space Village Avenue and Peterson Road may tend to create additional gaps in the traffic stream for turning movements at U.S. Highway 24 EB On/Off Ramps and Meadowbrook Parkway and may provide mitigation to the LOS E and F operations projected during both peak traffic hours.

See previous comments from 2027 analysis.

IV. Proposed Project Traffic

Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the proposed land use in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use code 220 (Multifamily Housing (Low-Rise)) was used for estimating trip generation because of its conservative rates and best fit to the proposed land use description.

Trip generation rates used in this study are presented in Table 4.

Table 4 – Trip Generation Rates

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
220	Multifamily Housing (Low-Rise)	DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

Table 5 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out.

Table 5 – Trip Generation Summary

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
220	Multifamily Housing (Low-Rise)	300 DU	2,022	29	90	119	96	57	153
		Total:	*2,022*	*29*	*90*	*119*	*96*	*57*	*153*

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 2,022 daily vehicle trips with 119 of those occurring during the morning peak hour and 153 during the afternoon peak hour.

Adjustments to Trip Generation Rates

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

Trip Distribution

The overall directional distribution of site-generated traffic was determined based on the location of development site within the City, proposed and existing area land uses, allowed turning movements, and available roadway network, and in reference to historical traffic count data provided by CDOT's Traffic Count Database System (TCDS)[7].

Overall trip distribution patterns for the development are shown on Figure 12.

Trip Assignment

Traffic assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments shown on Figure 13.

[7] Transportation Data Management System, MS2, 2025.

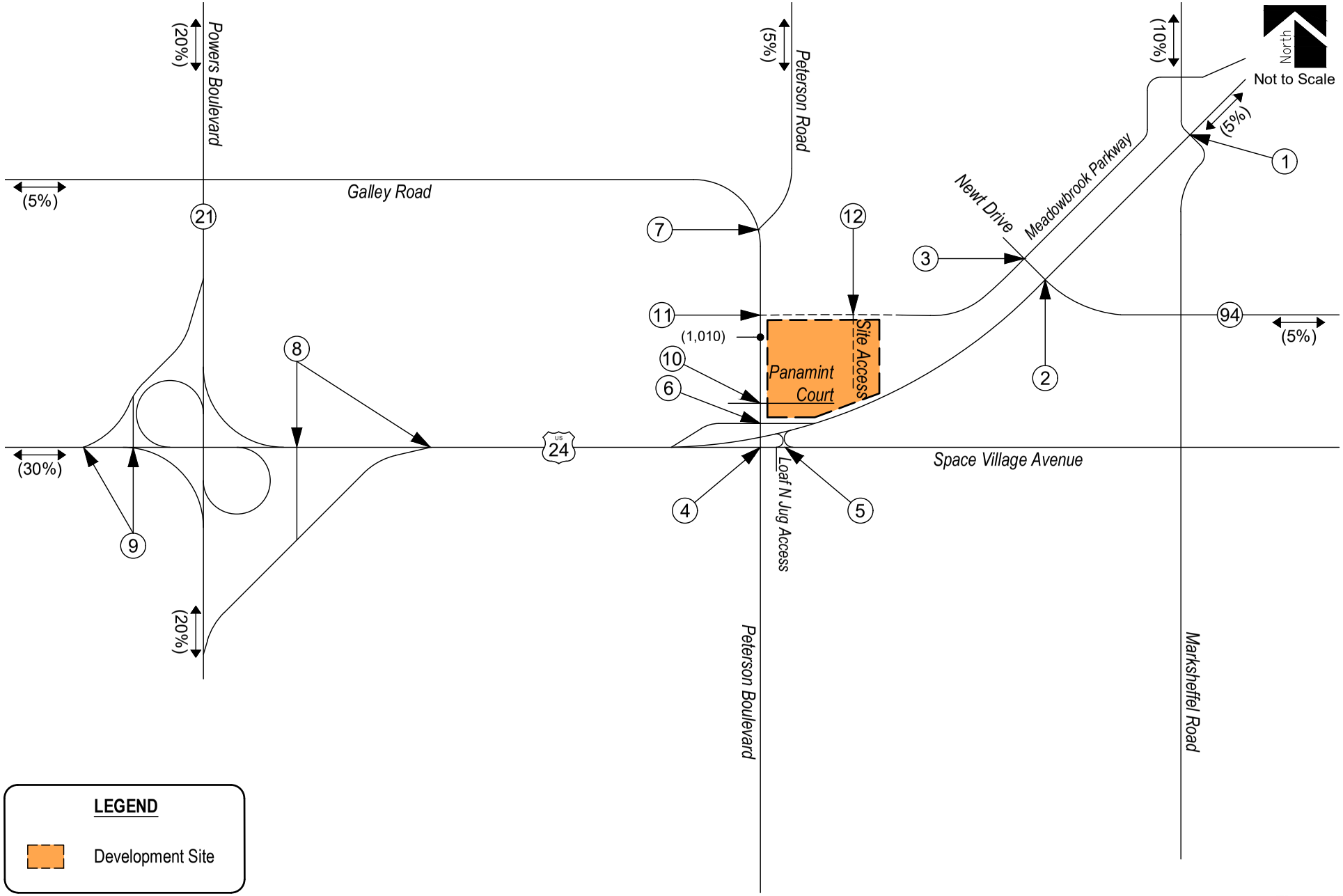
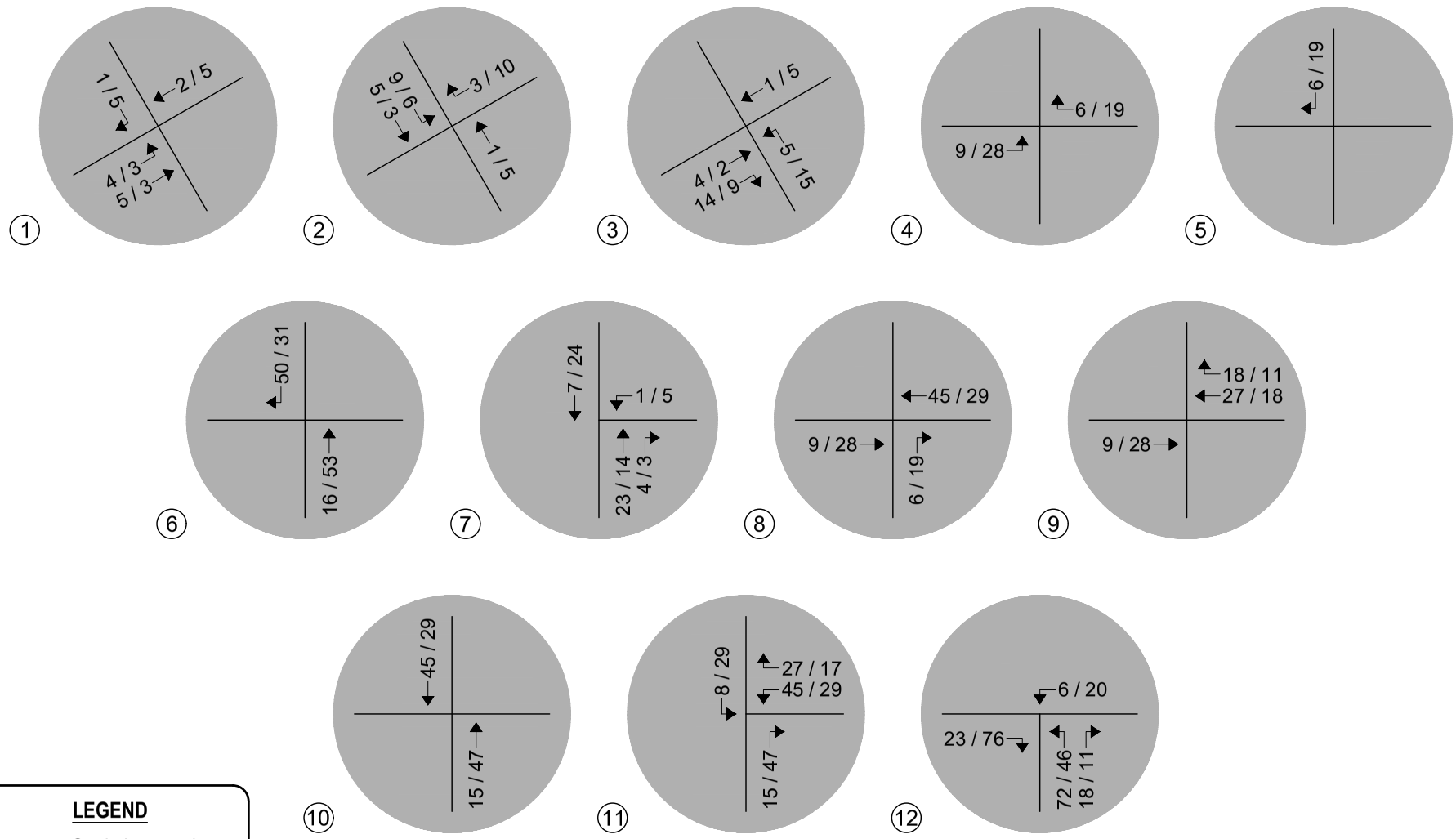


Figure 12
SITE DEVELOPMENT DISTRIBUTION
(%) : Overall
(ADT) : Average Daily Traffic


North
Not to Scale
1
1 / 5
2 / 5
4 / 3
5 / 3
2
5 / 3
9 / 3
3 / 10
1 / 5
3
1 / 5
4 / 2
14 / 9
5 / 15
4
6 / 19
9 / 28
5
6 / 19
6
50 / 31
16 / 53
7
7 / 24
1 / 5
23 / 14
4 / 3
8
45 / 29
9 / 28
6 / 19
9
18 / 11
27 / 18
9 / 28
10
45 / 29
15 / 47
11
8 / 29
27 / 17
45 / 29
15 / 47
12
6 / 20
23 / 76
72 / 46
18 / 11
LEGEND
Study Intersection Volumes

V. Future Traffic Conditions With Proposed Development

Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Years 2027 and 2045 with consideration of site-generated traffic. For analysis purposes, it was assumed that development construction would be completed by end of Year 2027.

Pursuant to area roadway improvement discussions provided in Section III, Year 2027 and Year 2045 total traffic conditions assume no roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

The study area intersections and projected short-term total ADT volumes are shown in Figure 14. Projected Year 2027 total intersection traffic volumes and intersection geometry are shown in Figure 15 and Figure 16, respectively.

The study area intersections and projected long-term total ADT volumes are shown in Figure 17. Figure 18 and Figure 19 shows projected total intersection traffic volumes and intersection geometry for Year 2045, respectively.

Total Traffic Auxiliary Lane Analysis

Auxiliary lanes for site development access drives were evaluated and are to be based on the County's Engineering Criteria Manual (ECM)[8].

Considering development build-out, an evaluation of auxiliary lane requirements, pursuant to Section 2.3.7.D, of the County's ECM, reveals that a northbound right turn deceleration lane at Meadowbrook Parkway along Peterson Road may be required since the development's projected peak hour right turn ingress volume exceeds the County's threshold of 50 vehicles per hour (vph). Additionally, a southbound left turn deceleration lane at Meadowbrook Parkway along Peterson Road may be required since the development's projected peak hour left turn ingress volume exceeds the County's threshold of 25 vph.

Additional evaluation of auxiliary lane requirements reveals that an eastbound right turn lane at Site Access along Meadowbrook Parkway may be required since the development's projected peak hour right turn ingress volume exceeds the County's threshold of 50 vph. Additionally, a westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may be required since the development's projected peak hour left turn ingress volume exceeds the County's threshold of 25 vph.

the "U turns" indicated at the intersection of Peterson and Meadowbrook are above the left turn threshold, based on criteria, a turn lane should be installed northbound on Peterson. The U turn traffic is not a typical movement pattern and that needs to be considered as a safety consideration from the left through lane.

[8] El Paso County Engineering Criteria Manual, El Paso County, January 8, 2020.

Multi-Modal Assessment

An assessment to pedestrian connectivity was evaluated as required within Section B.2.4.B of the County's ECM.

With the assumption that the site plan for the proposed development was designed per the County's ECM, and considering the urban classification of the surrounding roadways, it is expected that detached and attached sidewalks are expected to be provided. It is noted that bike lanes are not permitted on County local roadways and arterial roadways and as such, bike traffic may utilize the provided sidewalks are the ride within the roadway.

It is further noted that in review of the County's Parks, Trails and Open Space Master Plan[9], that several proposed City of Colorado Springs and El Paso County bicycle and regional trails are proposed within adjacent or near the proposed development.

[9] El Paso County Parks, Trails and Open Space Master Plan, El Paso County Parks, June 2022.

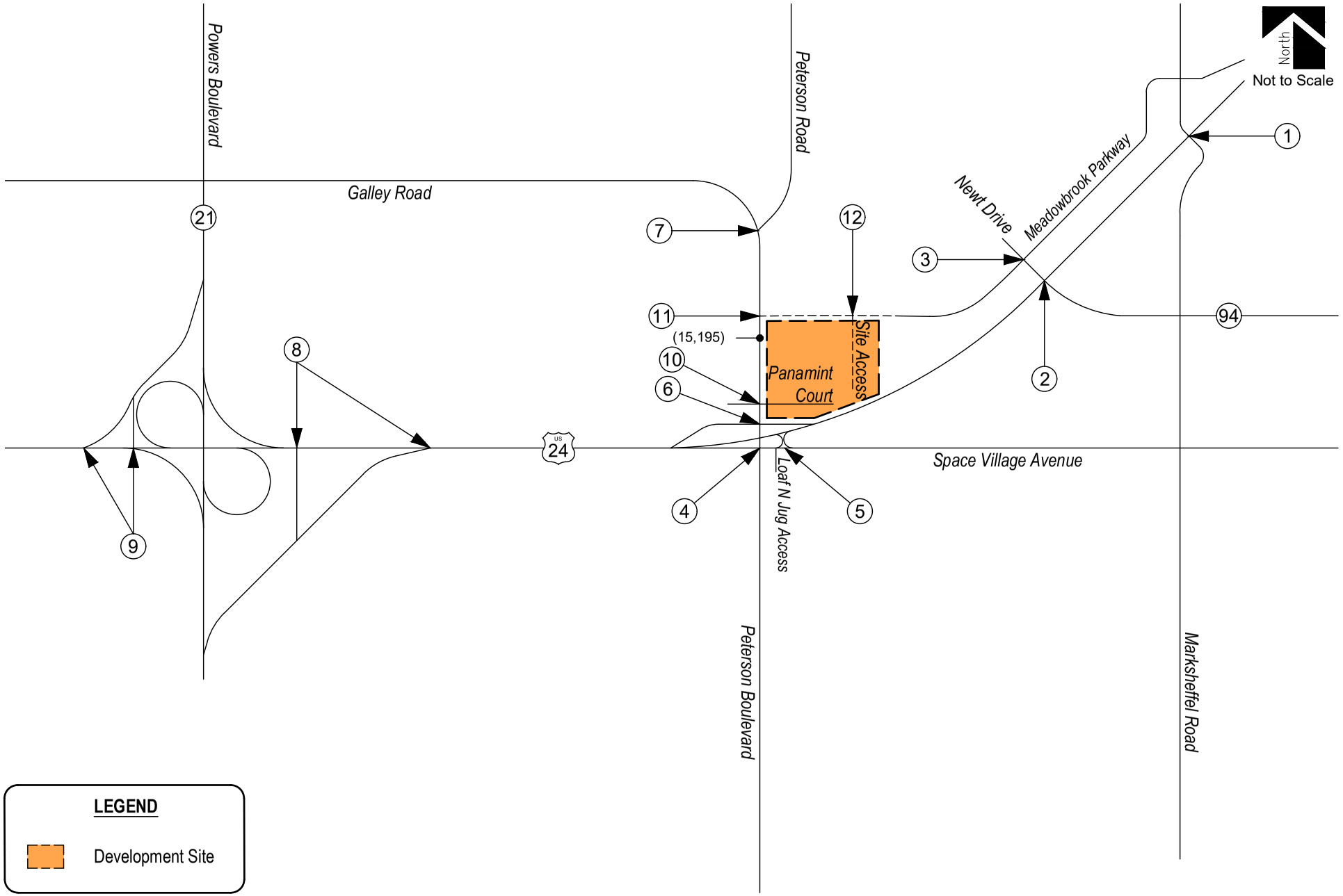


Figure 14
TOTAL TRAFFIC - YEAR 2027
(ADT) : Average Daily Traffic

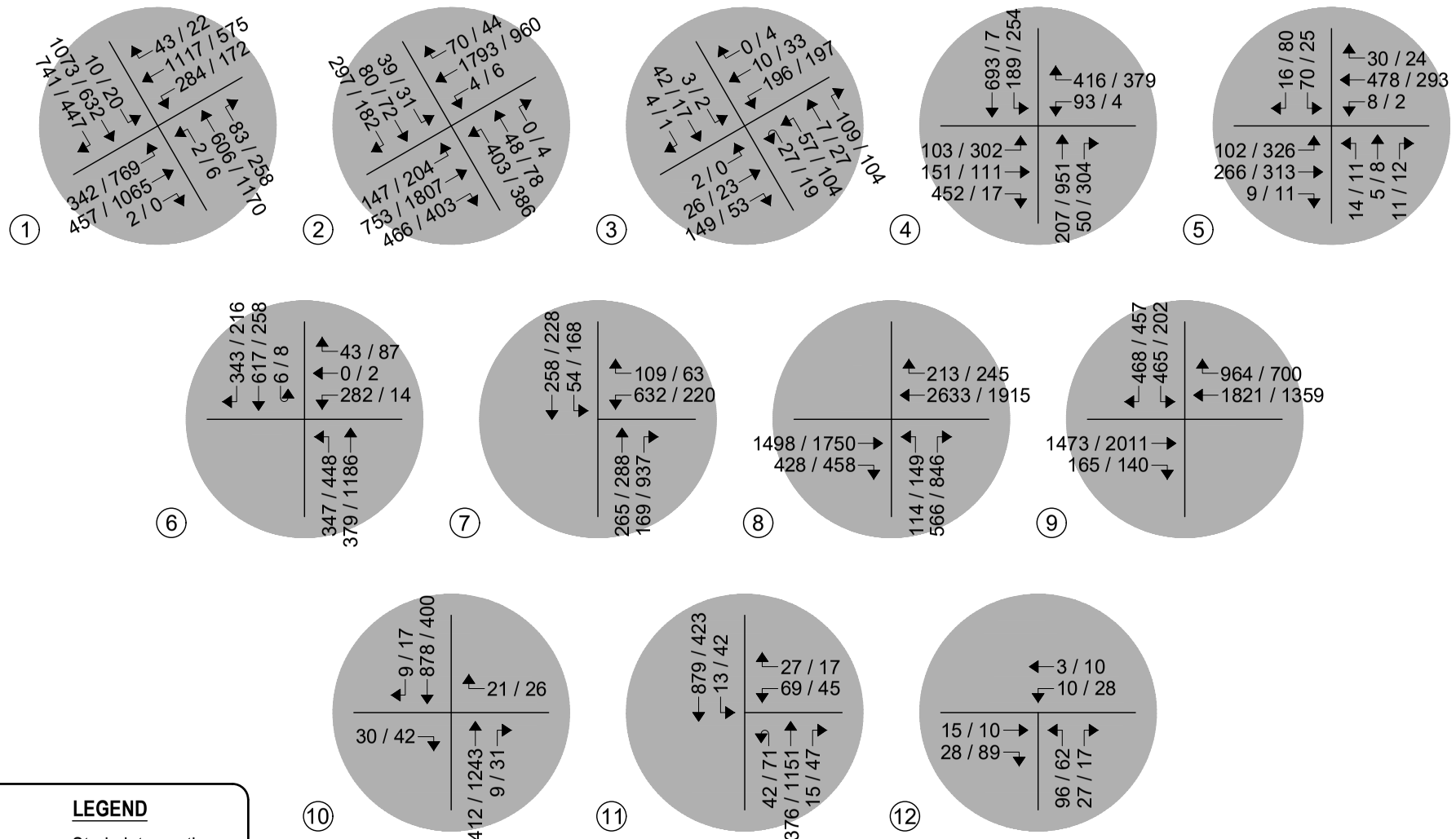


Figure 15
TOTAL TRAFFIC - YEAR 2027
Volumes
AM / PM Peak Hour

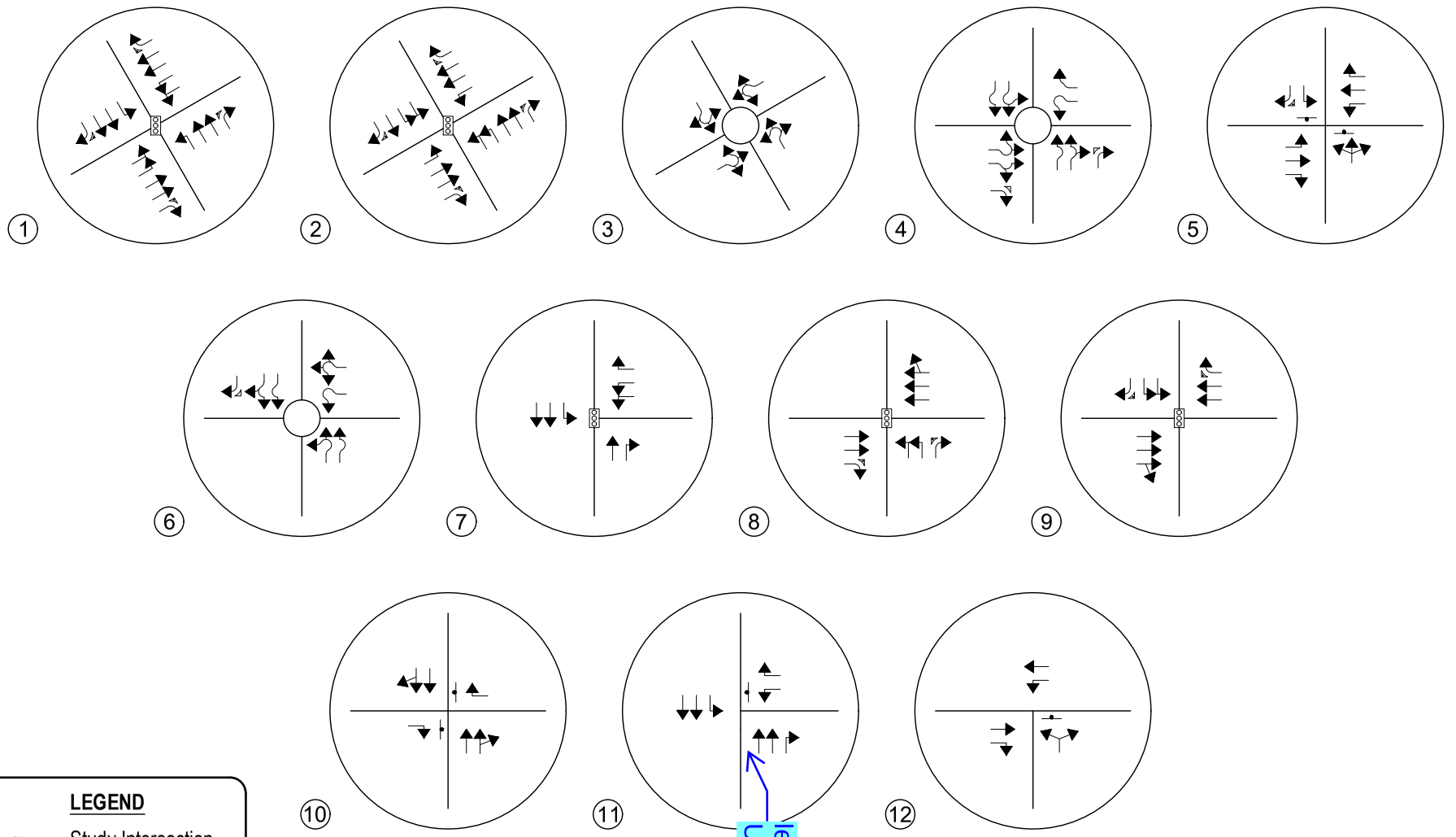


Figure 16
TOTAL TRAFFIC - YEAR 2027
Intersection Geometry

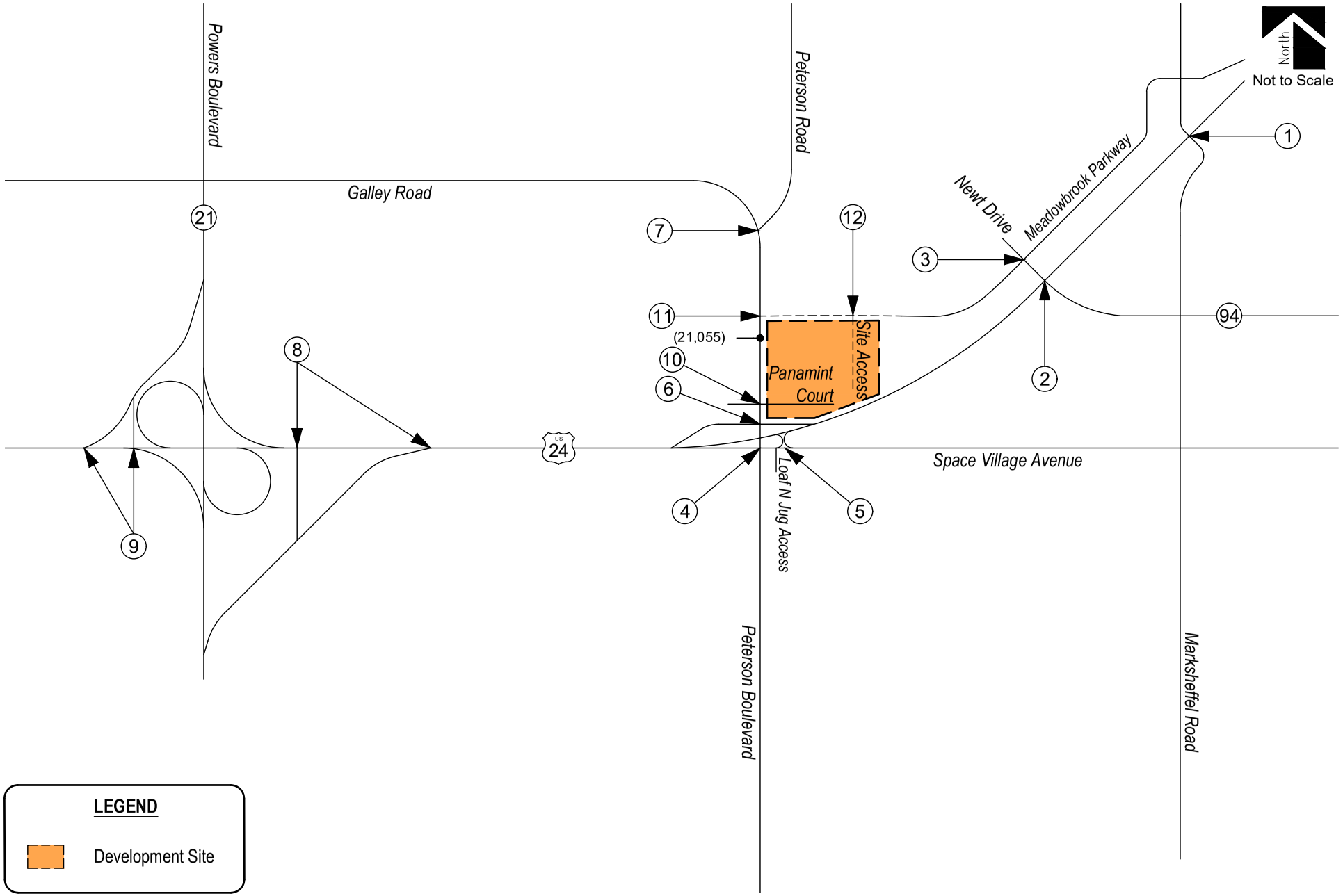


Figure 17
TOTAL TRAFFIC - YEAR 2045
(ADT) : Average Daily Traffic

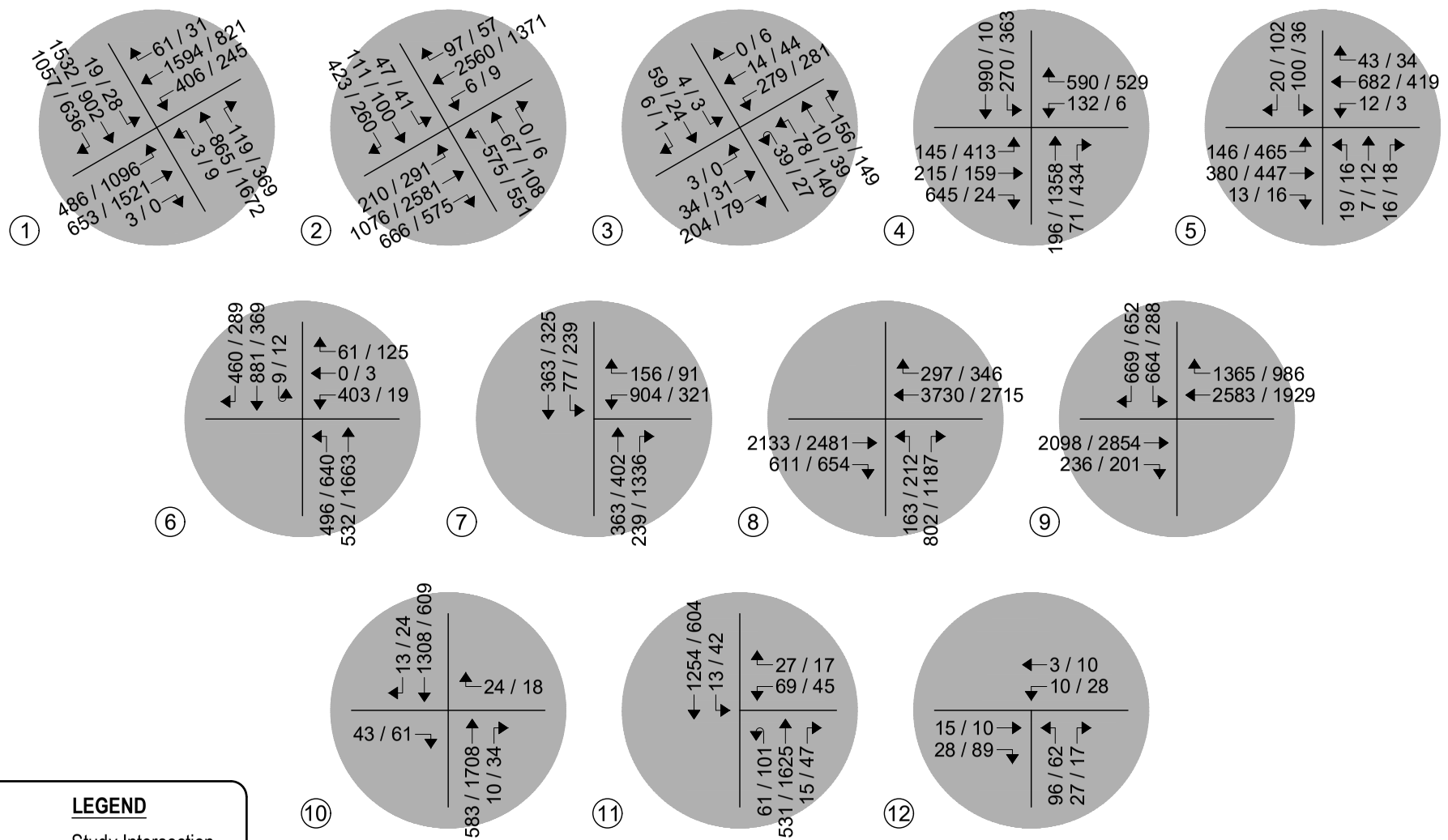


Figure 18
TOTAL TRAFFIC - YEAR 2045
Volumes
AM / PM Peak Hour

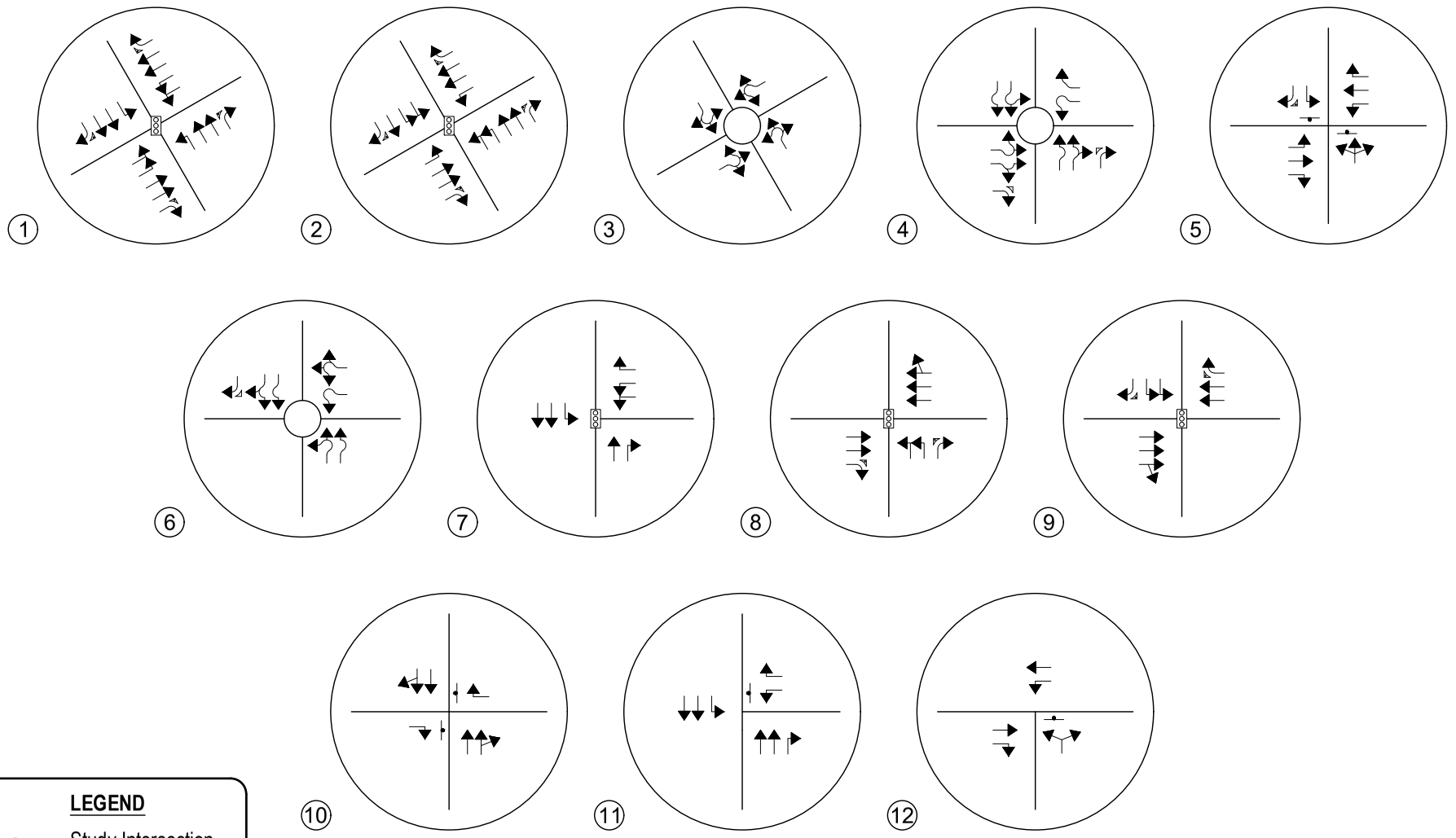


Figure 19
TOTAL TRAFFIC - YEAR 2045
Intersection Geometry

Peak Hour Intersection Levels of Service – Total Traffic

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. The analyses and procedures were performed in accordance with the latest HCM and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Total traffic level of service analysis results for Years 2027 and 2045 are summarized in Table 6 and Table 7, respectively.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 6 – Intersection Capacity Analysis Summary – Total Traffic – Year 2027

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
U.S. Highway 24 / Marksheffel Road (Signalized)	D (41.5)	D (48.8)
U.S. Highway 24 / State Highway 94 (Signalized)	D (37.3)	C (30.9)
Peterson Road / Galley Road (Signalized)	B (16.7)	B (19.0)
U.S. Highway 24 / State Highway 21 NB On/Off Ramps (Signalized)	A (5.6)	A (4.8)
U.S. Highway 24 / State Highway 21 SB On/Off Ramps (Signalized)	B (10.6)	A (5.7)
Meadowbrook Parkway / Newt Drive (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Peterson Road / Space Village Avenue (Roundabout)		
Eastbound Left and Through	B	A
Eastbound Through and Right	B	A
Eastbound Right	A	A
Westbound Left	A	A
Westbound Right	A	F
Northbound Through	A	C
Northbound Through and Right	A	C
Northbound Right	A	A
Southbound Left and Through	A	A
Southbound Through	A	A
Peterson Road / U.S. Highway 24 WB On/Off Ramps (Roundabout)		
Westbound Left	A	C
Westbound Left, Through, and Right	A	C
Northbound Left and Through	A	B
Northbound Through	A	B
Southbound Left and Through	B	A
Southbound Right	B	A
Space Village Avenue / U.S. Highway 24 EB On/Off Ramps (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	A
Northbound Left, Through and Right	C	E
Southbound Left and Through	E	F
Peterson Road / Panamint Court (Stop-Controlled)		
Eastbound Right	A	A
Westbound Right	A	C
Peterson Road / Meadowbrook Parkway (Stop-Controlled)		
Westbound Left	C	F
Westbound Right	A	B
Southbound Left	A	B
Meadowbrook Parkway / Site Access (Stop-Controlled)		
Westbound Left	A	A
Northbound Left and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Roundabout Intersection: Level of Service
Stop-Controlled Intersection: Level of Service

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2045

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
U.S. Highway 24 / Marksheffel Road (Signalized)	F (105.1)	F (137.1)
U.S. Highway 24 / State Highway 94 (Signalized)	F (133.3)	E (78.8)
Peterson Road / Galley Road (Signalized)	C (20.1)	E (68.5)
U.S. Highway 24 / State Highway 21 NB On/Off Ramps (Signalized)	B (19.9)	A (8.8)
U.S. Highway 24 / State Highway 21 SB On/Off Ramps (Signalized)	D (35.7)	A (8.5)
Meadowbrook Parkway / Newt Drive (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
Peterson Road / Space Village Avenue (Roundabout)		
Eastbound Left and Through	D	B
Eastbound Through and Right	C	A
Eastbound Right	A	A
Westbound Left	A	C
Westbound Right	B	F
Northbound Through	A	F
Northbound Through and Right	A	F
Northbound Right	A	A
Southbound Left and Through	A	A
Southbound Through	A	A
Peterson Road / U.S. Highway 24 WB On/Off Ramps (Roundabout)		
Westbound Left	C	D
Westbound Left, Through, and Right	B	F
Northbound Left and Through	A	C
Northbound Through	A	D
Southbound Left and Through	E	A
Southbound Right	E	A
Space Village Avenue / U.S. Highway 24 EB On/Off Ramps (Stop-Controlled)		
Eastbound Left	B	B
Westbound Left	A	A
Northbound Left, Through and Right	E	F
Southbound Left and Through	F	F
Peterson Road / Panamint Court (Stop-Controlled)		
Eastbound Right	B	A
Westbound Right	B	C
Peterson Road / Meadowbrook Parkway (Stop-Controlled)		
Westbound Left	F	F
Westbound Right	B	C
Southbound Left	A	C
Meadowbrook Parkway / Site Access (Stop-Controlled)		
Westbound Left	A	A
Northbound Left and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Roundabout Intersection: Level of Service
Stop-Controlled Intersection: Level of Service

Unresolved: Include a statement here about the percent of traffic this development is expected to add vs the future total volume. Are the impacts to these signals below 2%?

Total Traffic Analysis Results Upon Development Build-Out

Table 7 illustrates how, by Year 2045 and upon development build-out, the signalized intersection of U.S. Highway 24 and Marksheffel Road continues to experience LOS F operations during the morning and afternoon peak traffic hours. The LOS F operations continue to be attributed to the high volume of conflicting northbound left and southbound through volumes.

The signalized intersection of U.S. Highway 24 with State Highway 94 projects overall operations at LOS F during the morning peak traffic hour and LOS E during the afternoon peak traffic hour. As with background traffic, the LOS E and F operations are attributed to the overall high volume of vehicles traveling through the intersection causing many movements to be over capacity.

In order to mitigate the projected LOS E and F operations along U.S. Highway 24, widening the roadway from four to six through lanes or constructing grade separated interchanges are potential solutions to mitigate the LOS E and F operations projected in the long-term future.

Unresolved: include statement for contributing escrow for future construction of improvements based on the percent impact the development has on the intersection

The signalized inter
during the morning
operation continues to be attributed to the high volume of northbound right turning vehicles in the PM peak traffic hour. As previously discussed, construction of a free-flowing northbound channelized right turn lane is a potential solution to mitigate the LOS E operation projected.

The signalized intersection of U.S. Highway 24 with State Highway 21 NB On/Off Ramps has overall operations at LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The signalized intersection of U.S. Highway 24 with State Highway 21 SB On/Off Ramps expects overall operations at LOS D during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The roundabout-controlled intersection of Meadowbrook Parkway with Newt Drive projects turn movement operations at LOS A during the morning and afternoon peak traffic hours.

The roundabout-controlled intersection of Peterson Road with Space Village Avenue expects overall operations at LOS D or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the westbound right and northbound through and right movements which project LOS F operations during the PM peak traffic hour.

The roundabout-controlled intersection of Peterson Road with U.S. Highway 24 WB On/Off Ramps projects turn movement operations at LOS C or better during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour. Exceptions include the westbound left, through and right movement which projects LOS F operations during the PM peak traffic hour as well as the southbound movements which project LOS E operations during the AM peak traffic hour.

The stop-controlled intersection of Space Village Avenue with U.S. Highway 24 EB On/Off Ramps projects operations at or better than LOS B during the morning and afternoon peak traffic hours. Exceptions continue to include the northbound and southbound turning movements, which operate at LOS E and F during their respective peak hours. The LOS E and F operations continue to be attributed to the through traffic volume along Space Village Avenue and the stop-controlled nature of the intersection.

The stop-controlled intersection of Peterson Road with Panamint Court predicts turn movement operations at or better than LOS B during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

The stop-controlled intersection of Meadowbrook Parkway with Peterson Road projects turn movement operations at LOS B or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the westbound left turning movement, which operates at LOS F during both peak hours. The LOS F operation is attributed to the through traffic volume along Peterson Road and the stop-controlled nature of the intersection. It is again noted that signalization of the intersection is a potential solution to mitigate the projected LOS F operations. However, due to the proximity of the Peterson Road and Galley Road intersection, and the County's intersection spacing requirements, signalization of this intersection may not be allowed.

The stop-controlled intersection of Meadowbrook Parkway with Site Access predicts turn movement operations LOS A during both peak traffic hours.

It is noted that, compared to the background traffic analysis, the traffic generated by the proposed development is not expected to significantly change the operations of the study intersections. In general, these intersection operations are similar to background traffic conditions.

It is once again noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. The upstream signal control on Space Village Avenue and Peterson Road may tend to create additional gaps in the traffic stream for turning movements at U.S. Highway 24 EB On/Off Ramps and Meadowbrook Parkway and will most likely provide mitigation to the LOS E and F operations projected during both peak traffic hours.

these signals will be converted to roundabouts with the ongoing CDOT project. please update the TIS with that information.

VI. Project Impacts

It is emphasized that the analyses and procedures described in this study were performed in accordance with the latest HCM and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Queue Length Analysis

Queue lengths for the study intersections were analyzed using Year 2045 background and total traffic conditions. The analysis yields estimate of 95th percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. An average vehicle length of 25 feet was assumed. Queue lengths were modeled and are included with the Synchro worksheets in Appendix C.

In general, auxiliary lane lengths are recommended to accommodate County and CDOT's minimum turn lane lengths or accommodate long-term 95th percentile vehicle queues, whichever is greater.

Table 8 summarizes the 95th percentile queue results in comparison to the projected storage requirements for turn movements within study area for Year 2045.

Table 8 – Turn Lane Queues and Storage Requirements – Year 2045

Intersection	Turn Movement		Existing Turn Lane Length (feet)	Background 2045		Total 2045		Recommended Turn Lane Length (feet)
				AM Peak Hour (feet)	PM Peak Hour (feet)	AM Peak Hour (feet)	PM Peak Hour (feet)	
Signalized Intersections								
U.S. Highway 24 / Marksheffel Road	EB	L	1190' x2	468'	664'	475'	668'	1190' x2
		T	-	390'	820'	396'	824'	-
		R	600'	0'	0'	0'	0'	600'
	WB	L	1025' x2	278'	270'	278'	270'	1025' x2
		T	-	1298'	728'	1302'	735'	-
		R	700'	0'	0'	0'	0'	700'
	NB	L	295'	15'	32'	15'	32'	295'
		T	-	534'	1380'	534'	1380'	-
		R	350'	0'	0'	0'	0'	350'
	SB	L	375'	52'	77'	52'	77'	375'
		T	-	1294'	522'	1294'	522'	-
		R	500'	0'	0'	0'	0'	500'
U.S. Highway 24 / State Highway 94 / Newt Drive	EB	L	925'	404'	318'	404'	523'	925'
		T	-	316'	1660'	316'	1901'	-
		R	600'	0'	0'	0'	0'	600'
	WB	L	785'	22'	14'	22'	14'	785'
		T	-	1662'	252'	1662'	260'	-
		R	785'	0'	0'	0'	0'	785'
	NB	L	480' x2	464'	517'	464'	517'	480' x2
		T	-	50'	85'	51'	88'	-
		R	460'	0'	0'	0'	0'	460'
	SB	L	235' x2	36'	40'	42'	46'	235' x2
		T	-	249'	272'	261'	282'	-
		R	235'	0'	0'	0'	0'	235'
Peterson Road / Galley Road	WB	L	250' x2	246'	182'	262'	186'	250' x2
		R	250'	34'	50'	34'	50'	250'
	NB	T	-	200'	245'	240'	256'	-
		R	325'	44'	607'	45'	1612'	600'
	SB	L	100'	85'	404'	85'	404'	405'
		T	-	66'	44'	67'	48'	-
State Highway 21 NB Ramps / U.S. Highway 24	EB	T	-	256'	167'	256'	169'	-
		R	100'	0'	0'	0'	0'	100'
	WB	T,R	-	1371'	412'	1400'	424'	-
	NB	L	650'	140'	157'	140'	157'	650'
		R	900'	0'	0'	0'	0'	900'
State Highway 21 SB Ramps / U.S. Highway 24	EB	T	-	337'	521'	338'	533'	-
		R	50'	0'	0'	0'	0'	50'
	WB	T	-	1282'	242'	1284'	245'	-
		R	340'	34'	0'	42'	0'	340'
	SB	L	350' x2	455'	169'	455'	169'	350' x2
		R	525'	0'	0'	0'	0'	525'

Note: Turn Lane Length does not include taper length.
x2 = Dual Turn Lanes.

Table 8 (Continued) – Turn Lane Queues and Storage Requirements – Year 2045

Intersection	Turn Movement		Existing Turn Lane Length (feet)	Background 2045		Total 2045		Recommended Turn Lane Length (feet)
				AM Peak Hour (feet)	PM Peak Hour (feet)	AM Peak Hour (feet)	PM Peak Hour (feet)	
Roundabout Intersections								
Meadowbrook Parkway / Newt Drive	EB	L,T,R	-	25'	0'	25'	0'	-
	WB	L,T,R	-	25'	25'	25'	25'	-
	NB	L,T,R	-	25'	25'	25'	25'	-
	SB	L,T,R	-	0'	0'	0'	0'	-
Peterson Road / Space Village Avenue / U.S. Highway 24 EB Off Ramp	EB	L,T	-	75'	75'	75'	75'	-
		T,R		75'	25'	75'	25'	-
		R	465'	50'	0'	50'	0'	-
	WB	L	300'	25'	0'	25'	0'	-
		R	325'	125'	1025'	125'	1100'	-
	NB	L,T	-	0'	750'	25'	775'	-
		T,R		25'	825'	25'	850'	-
		R	300'	0'	25'	0'	25'	-
	SB	L,T	180'	100'	25'	100'	25'	-
		T,R	-	100'	0'	100'	0'	-
U.S. Highway 24 WB Ramps / Peterson Road	WB	L	50'	100'	25'	100'	25'	-
		L,T,R	-	50'	150'	50'	150'	-
	NB	L,T	180'	50'	325'	50'	350'	-
		T,R	-	50'	450'	50'	475'	-
	SB	L,T	-	225'	25'	225'	25'	-
		T,R		250'	25'	250'	25'	-
		R	75'	25'	25'	25'	25'	-
Stop-Controlled Intersections								
U.S. Highway 24 EB Ramps / Space Village Avenue	EB	L	300'	10'	65'	18'	65'	300'
		T	-	0'	0'	0'	0'	-
		R	155'	0'	0'	0'	0'	155'
	WB	L	200'	3'	0'	0'	0'	200'
		T	-	0'	0'	0'	0'	-
		R	80'	0'	0'	0'	0'	80'
	NB	L,T,R	-	38'	118'	38'	118'	-
	SB	L,T	-	225'	135'	225'	135'	-
		R	90'	0'	0'	0'	0'	90'
Peterson Road / Panamint Court	EB	R	-	10'	8'	5'	5'	-
	WB	R	-	3'	5'	3'	5'	-
	NB	T	-	10'	10'	8'	8'	-
		T,R	-	0'	0'	0'	0'	-
	SB	T	-	0'	0'	0'	0'	-
		T,R	-	0'	0'	0'	0'	-
Peterson Road / Meadowbrook Parkway	WB	L	-	33'	63'	135'	175'	180'
		R	-	-	-	3'	5'	-
	NB	T	-	0'	0'	0'	5'	-
		R	-	0'	0'	0'	0'	115'
	SB	L	-	0'	3'	3'	13'	115'
		T	-	0'	0'	0'	0'	-
Site Access / Meadowbrook Parkway	EB	T	-	0'	0'	0'	0'	-
		R	-	0'	0'	0'	0'	155'
	WB	L	-	0'	0'	0'	3'	155'
		T	-	0'	0'	0'	0'	-
	NB	L,R	-	3'	3'	13'	8'	-

Note: Turn Lane Length does not include taper length.
x2 = Dual Turn Lanes.

As Table 8 shows, the majority of turn lane lengths at the study intersections have sufficient storage to accommodate future traffic volumes. However, at the Peterson Road intersections with the U.S. Highway 24 on/off ramps as well as Galley Road, multiple movements reported vehicle queuing that has the potential to extend beyond the existing turn lane lengths.

The greatest queue length occurred along Peterson Road at Galley Road during the afternoon peak hour. SYNCHRO's analysis results indicate that the queue length is approximately 65 vehicles for the northbound right movement. As previously discussed, construction of a free-flowing northbound channelized right turn lane is a potential solution to reduce the extensive queues projected. It is also noted that this condition occurs under background conditions without the proposed. It is recommended that County Staff monitors the study intersection to determine when mitigation is most appropriate.

It is to be noted that significant vehicle queuing exists during background traffic conditions without the proposed development.

Unresolved: Include discussion of potential of this development to contribute to an escrow account for future improvements to the intersection.

Development Impacts

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2045 background traffic conditions.

Recommended Improvements

Roadway and intersection improvement recommendations were assessed pursuant to roadway descriptions discussed in Section I, projected peak hour traffic volumes, level of service results, projected 95th percentile queue lengths, and per requirements defined within the City's TCM, County's ECM, and CDOT's SHAC.

As discussed in Section V, a southbound left turn deceleration lane and a northbound right turn deceleration lane at Meadowbrook Parkway along Peterson Road may be required since the projected peak hour left and right turn volumes exceed the County's applicable thresholds. Additionally, an eastbound right turn deceleration lane and westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may also be required.

Auxiliary lane lengths at the Peterson Road and Galley Road intersection are recommended to be lengthened where applicable, in order to accommodate City, County, and CDOT's minimum turn lane lengths or accommodate long-term 95th percentile vehicle queues, whichever is greater.

Beyond those described above, no additional roadway or intersection improvements associated with the proposed site development are identified at this time.

Prepare a table showing all recommended improvements and project's fair share of those improvements.

VII. Conclusion

Unresolved: Please include a section for potential required deviations if intersection spacing is not met.

This traffic impact study addressed the capacity, geometric, and control requirements associated with the development entitled Hillpointe Apartments at Peterson. This proposed residential development consists of a multifamily housing community. The development is located near the northeast corner of the intersection of U.S. Highway 24 and Peterson Road in Colorado Springs, Colorado.

The study area examined in this analysis encompassed the segment of U.S. Highway 24 bounded by the State Highway 21 interchange east to Marksheffel Road, the intersection of Peterson Road and Galley Road, the intersection of Meadowbrook Parkway and Newt Drive, and included proposed site accesses.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2027 and Year 2045 background traffic conditions, and Year 2027 and Year 2045 total traffic conditions.

Analysis of existing traffic conditions indicates that all signalized intersections operate under LOS D conditions or better during their respective peak hour periods, while all unsignalized intersections operate with turn movements at or better than LOS D during their respective peak traffic periods. One exception includes the Space Village Avenue and U.S. Highway 24 EB On/Off Ramps intersection which has select turn movement operations at LOS E and LOS F.

Under Year 2027 and 2045 background traffic conditions, operational analysis shows that all signalized intersections are projected to operate with LOS C or better operations during peak traffic periods, with various exceptions reporting LOE E and F operations along U.S. Highway 24 and Peterson Road. All unsignalized intersections anticipate turn movement operations at or better than LOS D during their respective peak traffic periods. Exceptions include the Space Village Avenue intersections with Peterson Road and the U.S. Highway 24 EB On/Off Ramps as well as the Peterson Road and Meadowbrook Parkway intersection which have various projected LOS E and F operations.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2045 background traffic conditions. The proposed site access has long-term operations at LOS A during peak traffic periods and upon build-out.

It is recommended that a southbound left turn deceleration lane and a northbound right turn deceleration lane at Meadowbrook Parkway along Peterson Road be constructed since projected turn volumes exceed the County's thresholds. Additionally, an eastbound right turn deceleration lane and westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may also be required. Existing auxiliary lanes are recommended to be lengthened where applicable, in order to accommodate City, County, and CDOT's minimum turn lane lengths or long-term 95th percentile vehicle queues, whichever is greater.

25-337

This site is subject to the El Paso County Road Impact Fee Program (Resolution 24-377), as amended. An option for payment will be selected at the final land use approval stage.

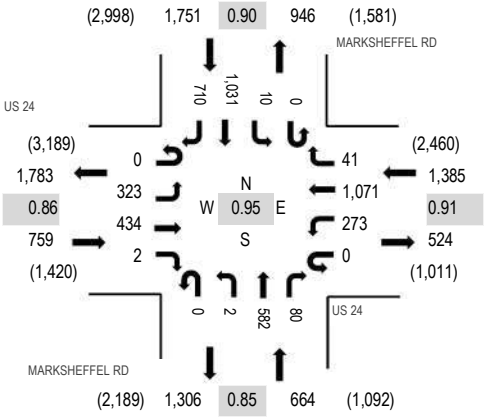
APPENDIX A

Traffic Count Data

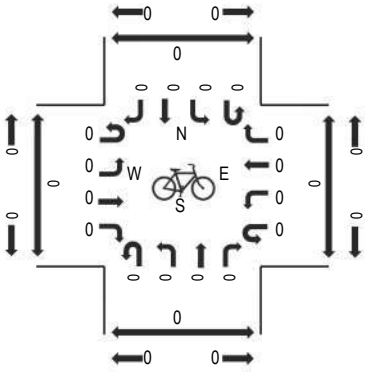
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 MARKSHEFFEL RD & US 24 AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

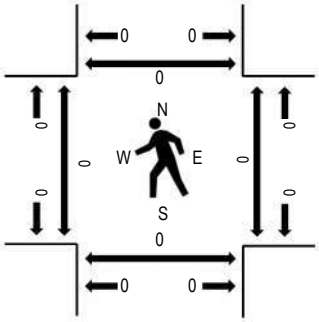
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

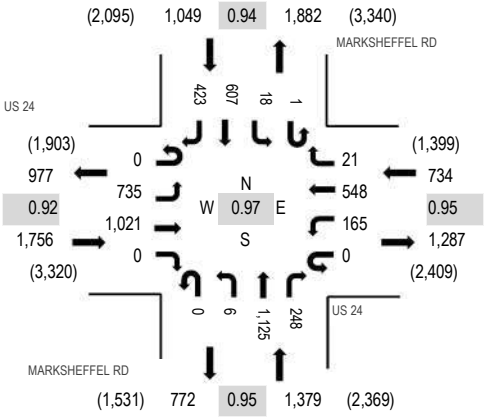
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				MARKSHEFFEL RD Northbound				MARKSHEFFEL RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	68	72	0	0	62	281	2	0	0	134	22	0	3	296	188	1,128	4,559	0	0	0	0
7:15 AM	0	67	125	0	0	67	261	3	0	0	149	20	0	3	215	187	1,097	4,402	0	0	0	0
7:30 AM	0	81	122	1	0	65	242	20	0	2	171	22	0	3	284	188	1,201	4,183	0	0	0	0
7:45 AM	0	107	115	1	0	79	287	16	0	0	128	16	0	1	236	147	1,133	3,822	0	0	0	0
8:00 AM	0	57	94	0	0	45	275	6	0	1	102	18	0	0	233	140	971	3,411	0	0	0	0
8:15 AM	0	59	111	0	0	62	205	8	0	3	81	17	0	4	183	145	878		0	0	0	0
8:30 AM	0	65	112	1	0	33	217	4	0	1	89	10	0	6	156	146	840		0	0	0	0
8:45 AM	0	67	94	1	0	37	174	9	0	0	88	18	0	3	132	99	722		0	0	0	0
Count Total	0	571	845	4	0	450	1,942	68	0	7	942	143	0	23	1,735	1,240	7,970		0	0	0	0
Peak Hour	0	323	434	2	0	273	1,071	41	0	2	582	80	0	10	1,031	710	4,559		0	0	0	0

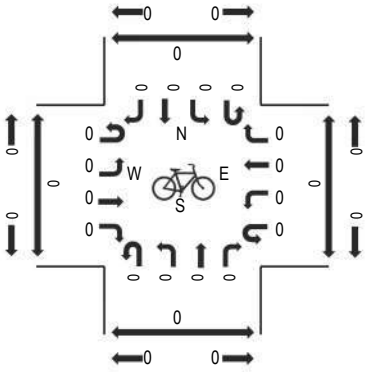
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 MARKSHEFFEL RD & US 24 PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

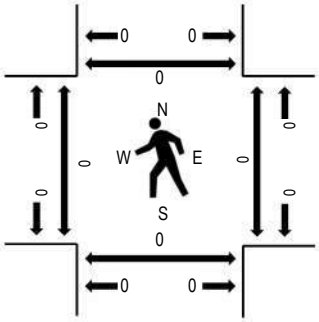
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

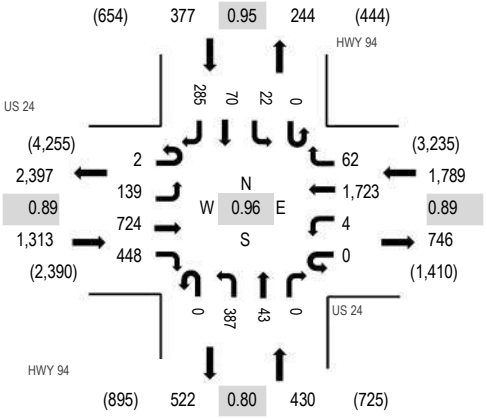
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				MARKSHEFFEL RD Northbound				MARKSHEFFEL RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	198	250	0	0	30	155	1	0	1	301	61	0	6	158	111	1,272	4,918	0	0	0	0
4:15 PM	0	208	270	0	0	54	121	8	0	2	280	74	0	4	156	76	1,253	4,807	0	0	0	0
4:30 PM	0	168	257	0	0	43	144	7	0	2	267	49	0	3	142	124	1,206	4,685	0	0	0	0
4:45 PM	0	161	244	0	0	38	128	5	0	1	277	64	1	5	151	112	1,187	4,549	0	0	0	0
5:00 PM	0	170	283	1	0	41	124	8	0	0	228	46	0	5	141	114	1,161	4,265	0	0	0	0
5:15 PM	0	158	230	0	0	33	134	3	0	0	239	46	0	6	183	99	1,131		0	0	0	0
5:30 PM	0	174	234	0	0	42	144	2	0	1	194	39	0	3	128	109	1,070		0	0	0	0
5:45 PM	0	126	188	0	0	32	99	3	0	6	153	38	0	4	158	96	903		0	0	0	0
Count Total	0	1,363	1,956	1	0	313	1,049	37	0	13	1,939	417	1	36	1,217	841	9,183		0	0	0	0
Peak Hour	0	735	1,021	0	0	165	548	21	0	6	1,125	248	1	18	607	423	4,918		0	0	0	0

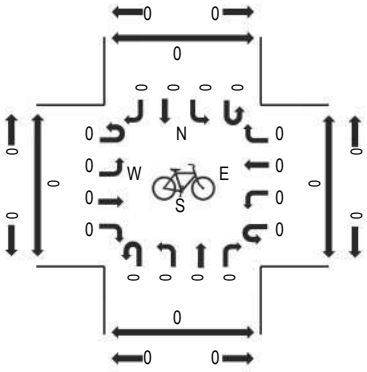
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 HWY 94 & US 24 AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

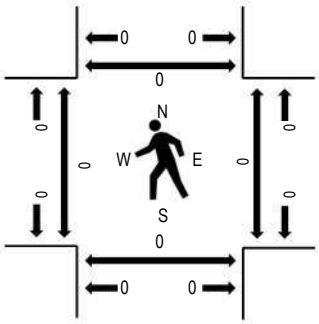
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

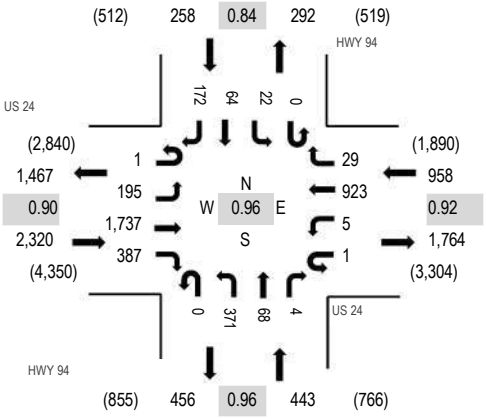
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				HWY 94 Northbound				HWY 94 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	2	35	135	141	0	0	494	11	0	74	13	0	0	5	12	82	1,004	3,909	0	0	0	0
7:15 AM	0	29	179	123	0	0	385	16	0	121	13	0	0	3	18	74	961	3,796	0	0	0	0
7:30 AM	0	37	232	98	0	2	420	16	0	100	12	0	0	10	20	69	1,016	3,592	0	0	0	0
7:45 AM	0	38	178	86	0	2	424	19	0	92	5	0	0	4	20	60	928	3,374	0	0	0	0
8:00 AM	1	32	171	88	0	0	431	14	0	65	16	0	0	4	16	53	891	3,095	0	0	0	0
8:15 AM	1	24	137	74	0	1	352	13	0	70	10	0	0	5	9	61	757		0	0	0	0
8:30 AM	1	22	177	84	0	1	335	19	0	71	8	1	0	7	15	57	798		0	0	0	0
8:45 AM	1	27	159	78	0	1	272	7	0	46	8	0	0	3	6	41	649		0	0	0	0
Count Total	6	244	1,368	772	0	7	3,113	115	0	639	85	1	0	41	116	497	7,004		0	0	0	0
Peak Hour	2	139	724	448	0	4	1,723	62	0	387	43	0	0	22	70	285	3,909		0	0	0	0

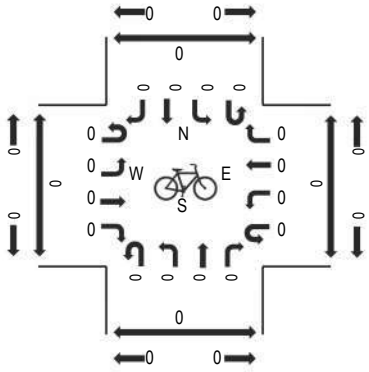
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 HWY 94 & US 24 PM
Date: Thursday, May 15, 2025
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

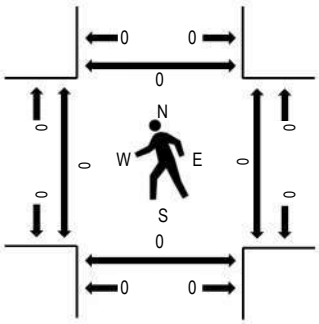
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

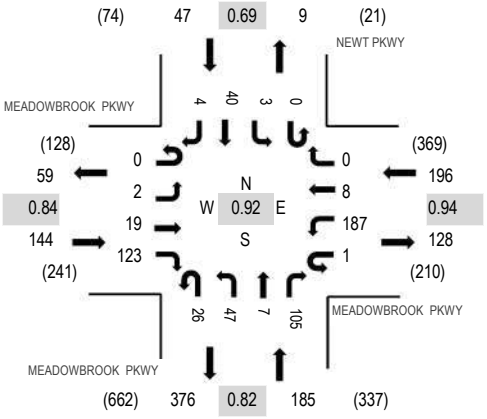
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				HWY 94 Northbound				HWY 94 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	39	430	83	0	1	245	6	0	103	15	0	1	11	13	56	1,003	3,976	0	0	0	0
4:15 PM	1	53	484	107	0	1	221	5	0	97	17	2	0	2	12	36	1,038	3,979	0	0	0	0
4:30 PM	0	46	408	99	1	2	222	6	0	102	13	1	0	6	17	42	965	3,838	0	0	0	0
4:45 PM	0	53	410	72	0	1	258	9	0	84	20	1	0	5	16	41	970	3,769	0	0	0	0
5:00 PM	0	43	435	109	0	1	222	9	0	88	18	0	0	9	19	53	1,006	3,542	0	0	0	0
5:15 PM	0	40	393	86	0	1	227	7	0	72	6	0	0	3	13	49	897		0	0	0	0
5:30 PM	0	38	394	89	0	0	248	4	0	55	13	2	0	3	11	39	896		0	0	0	0
5:45 PM	0	43	301	94	0	1	186	6	0	48	9	0	0	3	7	45	743		0	0	0	0
Count Total	1	355	3,255	739	1	8	1,829	52	0	649	111	6	1	42	108	361	7,518		0	0	0	0
Peak Hour	1	195	1,737	387	1	5	923	29	0	371	68	4	0	22	64	172	3,979		0	0	0	0

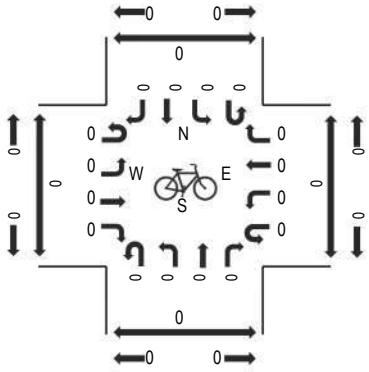
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 MEADOWBROOK PKWY & MEADOWBROOK PKWY AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

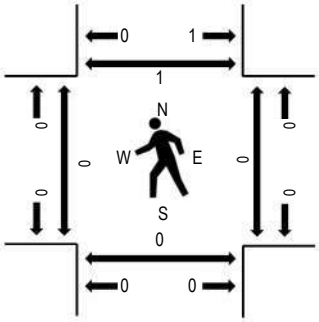
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

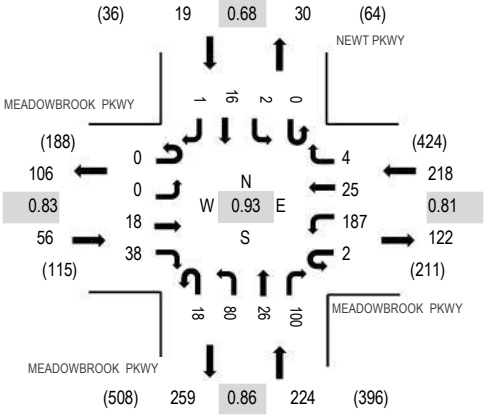
Traffic Counts - Motorized Vehicles

Interval Start Time	MEADOWBROOK PKWY Eastbound				MEADOWBROOK PKWY Westbound				MEADOWBROOK PKWY Northbound				NEWT PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	6	36	0	52	0	0	3	10	0	33	0	0	11	2	154	572	0	0	0	0
7:15 AM	0	0	4	32	1	42	4	0	4	11	0	23	0	1	16	0	138	544	0	0	0	1
7:30 AM	0	1	6	32	0	48	1	0	12	15	3	28	0	1	6	2	155	523	0	0	0	0
7:45 AM	0	0	3	23	0	45	3	0	7	11	4	21	0	1	7	0	125	487	0	0	0	0
8:00 AM	0	0	1	28	0	36	1	1	4	18	3	26	0	0	7	1	126	449	0	0	0	0
8:15 AM	0	1	2	23	0	47	4	0	0	16	2	13	0	1	7	1	117		0	0	0	0
8:30 AM	0	0	2	26	3	42	4	0	12	8	2	15	0	0	4	1	119		0	0	0	0
8:45 AM	0	0	5	9	0	30	5	0	6	10	3	14	0	0	5	0	87		0	0	0	0
Count Total	0	3	29	209	4	342	22	1	48	99	17	173	0	4	63	7	1,021		0	0	0	1
Peak Hour	0	2	19	123	1	187	8	0	26	47	7	105	0	3	40	4	572		0	0	0	1

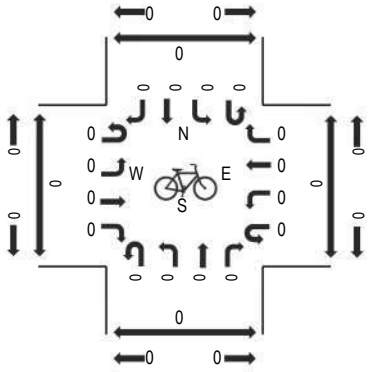
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 MEADOWBROOK PKWY & MEADOWBROOK PKWY PM
Date: Thursday, May 15, 2025
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

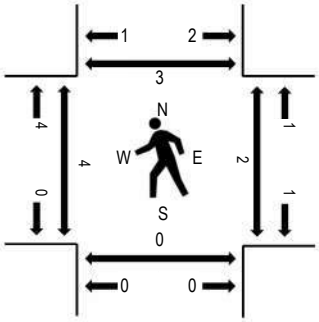
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

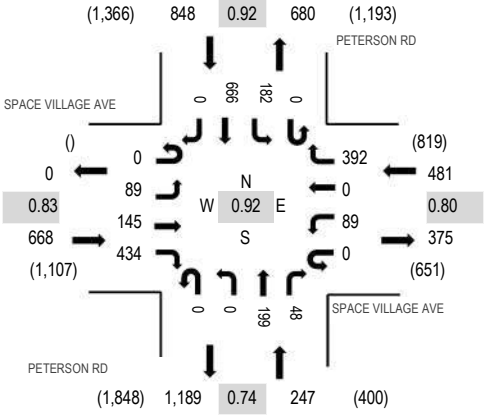
Traffic Counts - Motorized Vehicles

Interval Start Time	MEADOWBROOK PKWY Eastbound				MEADOWBROOK PKWY Westbound				MEADOWBROOK PKWY Northbound				NEWT PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	3	10	0	54	4	2	5	14	6	22	0	0	6	1	127	505	0	0	0	1
4:15 PM	0	0	1	8	2	38	6	1	5	22	8	26	0	1	2	1	121	517	2	0	0	0
4:30 PM	0	0	6	11	0	46	7	2	5	19	4	20	0	0	5	0	125	506	1	0	0	1
4:45 PM	0	0	7	11	0	40	6	0	5	22	4	34	0	0	3	0	132	494	0	1	0	1
5:00 PM	0	0	4	8	0	63	6	1	3	17	10	20	0	1	6	0	139	466	1	1	0	1
5:15 PM	0	0	3	10	0	50	5	2	4	16	4	14	0	0	2	0	110		1	0	0	1
5:30 PM	0	1	8	4	0	39	7	3	4	11	9	22	0	1	4	0	113		2	0	0	2
5:45 PM	0	1	2	17	0	35	4	1	3	20	5	13	0	1	2	0	104		0	0	0	2
Count Total	0	2	34	79	2	365	45	12	34	141	50	171	0	4	30	2	971		7	2	0	9
Peak Hour	0	0	18	38	2	187	25	4	18	80	26	100	0	2	16	1	517		4	2	0	3

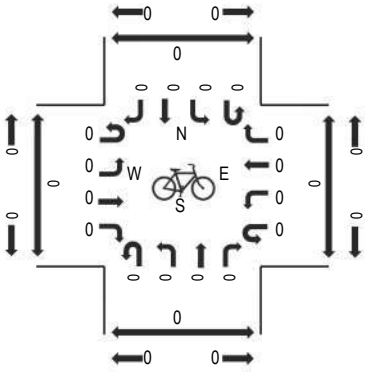
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 PETERSON RD & SPACE VILLAGE AVE AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

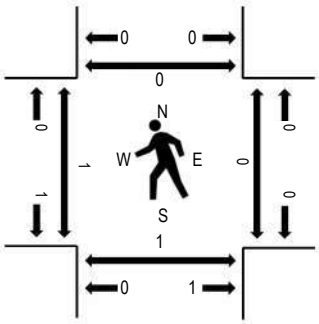
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

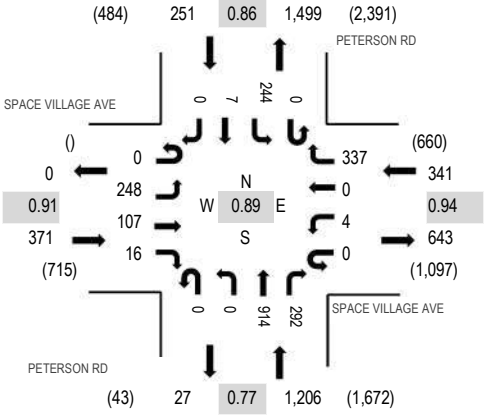
Traffic Counts - Motorized Vehicles

Interval Start Time	SPACE VILLAGE AVE Eastbound				SPACE VILLAGE AVE Westbound				PETERSON RD Northbound				PETERSON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	17	23	100	0	11	0	80	0	0	36	5	0	38	172	0	482	2,244	0	0	0	0
7:15 AM	0	11	35	91	0	13	0	108	0	0	54	12	0	50	181	0	555	2,228	0	0	0	0
7:30 AM	0	32	43	129	0	29	0	88	0	0	68	17	0	50	140	0	596	2,065	1	0	1	0
7:45 AM	0	29	44	114	0	36	0	116	0	0	41	14	0	44	173	0	611	1,784	0	0	0	0
8:00 AM	0	16	32	100	0	10	0	89	0	0	35	12	0	31	141	0	466	1,448	0	0	0	0
8:15 AM	0	26	24	66	0	5	0	84	0	0	20	7	0	42	118	0	392		0	0	0	0
8:30 AM	0	27	24	44	0	6	0	70	1	0	30	14	0	33	66	0	315		0	0	0	0
8:45 AM	0	21	20	39	0	5	0	69	0	0	26	8	0	29	58	0	275		0	0	0	0
Count Total	0	179	245	683	0	115	0	704	1	0	310	89	0	317	1,049	0	3,692		1	0	1	0
Peak Hour	0	89	145	434	0	89	0	392	0	0	199	48	0	182	666	0	2,244		1	0	1	0

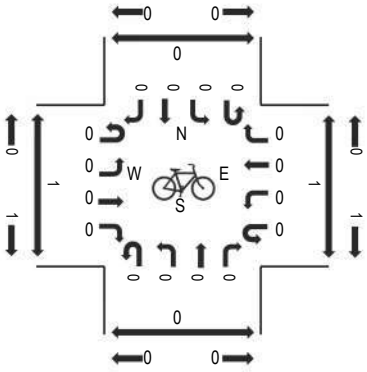
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 PETERSON RD & SPACE VILLAGE AVE PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

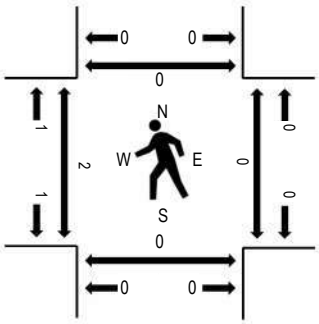
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

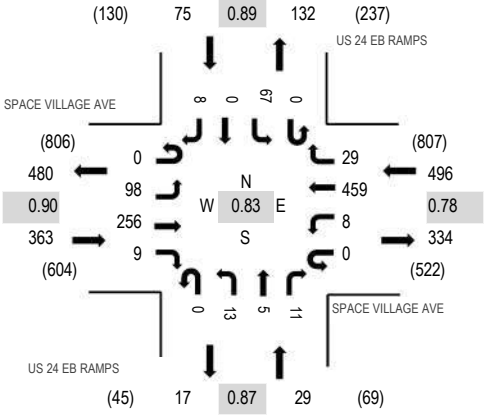
Traffic Counts - Motorized Vehicles

Interval Start Time	SPACE VILLAGE AVE Eastbound				SPACE VILLAGE AVE Westbound				PETERSON RD Northbound				PETERSON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	53	26	0	0	0	0	89	0	0	296	96	0	52	0	0	612	2,169	2	0	0	0
4:15 PM	0	61	24	3	0	1	0	80	0	0	216	78	0	72	4	0	539	1,957	0	0	0	0
4:30 PM	0	64	33	9	0	1	0	90	0	0	222	79	0	65	3	0	566	1,761	0	0	0	0
4:45 PM	0	70	24	4	0	2	0	78	0	0	180	39	0	55	0	0	452	1,533	0	0	0	0
5:00 PM	0	63	25	1	0	0	0	82	0	0	129	39	0	59	2	0	400	1,362	0	0	0	0
5:15 PM	0	64	27	2	0	0	0	72	0	0	93	23	0	59	3	0	343		0	0	0	0
5:30 PM	0	58	30	2	0	3	0	87	0	0	70	28	0	58	2	0	338		0	0	0	0
5:45 PM	0	44	28	0	0	1	0	74	0	0	56	28	0	50	0	0	281		0	2	0	0
Count Total	0	477	217	21	0	8	0	652	0	0	1,262	410	0	470	14	0	3,531		2	2	0	0
Peak Hour	0	248	107	16	0	4	0	337	0	0	914	292	0	244	7	0	2,169		2	0	0	0

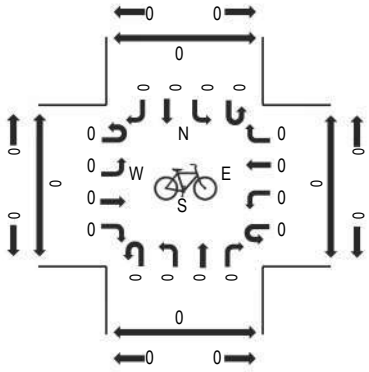
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 US 24 EB RAMPS & SPACE VILLAGE AVE AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

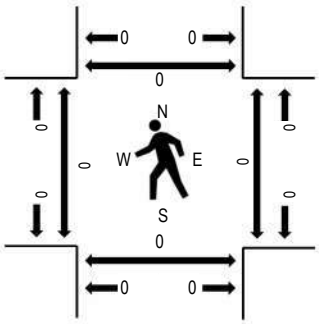
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

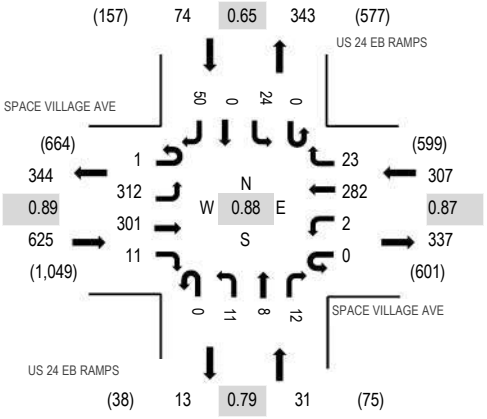
Traffic Counts - Motorized Vehicles

Interval Start Time	SPACE VILLAGE AVE Eastbound				SPACE VILLAGE AVE Westbound				US 24 EB RAMPS Northbound				US 24 EB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	25	37	3	0	1	89	3	0	3	0	2	0	18	0	3	184	963	0	0	0	0
7:15 AM	0	22	73	2	0	3	110	5	0	5	2	3	0	12	0	0	237	952	0	0	0	0
7:30 AM	0	28	73	0	0	1	114	12	0	0	0	4	0	20	0	1	253	891	0	0	0	0
7:45 AM	0	23	73	4	0	3	146	9	0	5	3	2	0	17	0	4	289	793	0	0	0	0
8:00 AM	0	16	42	6	0	1	79	6	0	8	1	3	0	7	0	4	173	647	0	0	0	0
8:15 AM	0	21	34	5	0	4	85	5	1	5	0	4	0	10	0	2	176		0	0	0	0
8:30 AM	0	25	32	4	0	0	62	7	1	5	5	2	0	7	0	5	155		0	0	0	0
8:45 AM	0	17	36	3	0	1	60	1	0	3	1	1	0	10	2	8	143		0	0	0	0
Count Total	0	177	400	27	0	14	745	48	2	34	12	21	0	101	2	27	1,610		0	0	0	0
Peak Hour	0	98	256	9	0	8	459	29	0	13	5	11	0	67	0	8	963		0	0	0	0

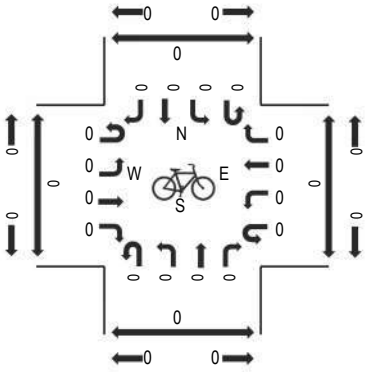
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 US 24 EB RAMPS & SPACE VILLAGE AVE PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

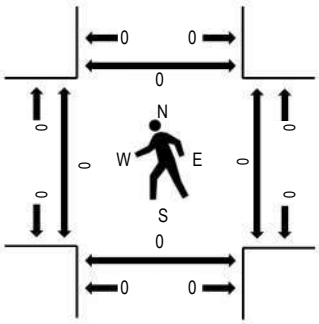
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

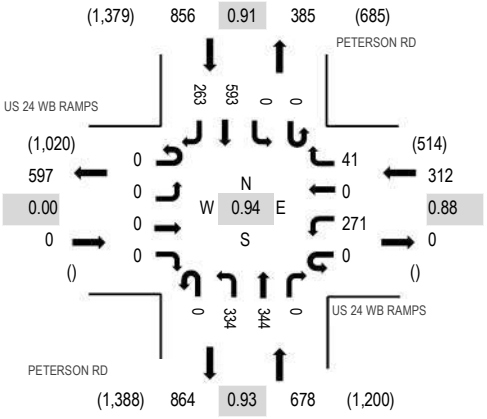
Traffic Counts - Motorized Vehicles

Interval Start Time	SPACE VILLAGE AVE Eastbound				SPACE VILLAGE AVE Westbound				US 24 EB RAMPS Northbound				US 24 EB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	101	70	4	0	0	80	9	0	4	2	4	0	7	0	12	293	1,037	0	0	0	0
4:15 PM	0	83	82	1	0	0	59	3	0	4	2	3	0	5	0	11	253	964	0	0	0	0
4:30 PM	1	82	82	5	0	0	83	3	0	1	2	4	0	6	0	11	280	910	0	0	0	0
4:45 PM	0	46	67	1	0	2	60	8	0	2	2	1	0	6	0	16	211	867	0	0	0	0
5:00 PM	0	57	56	3	0	2	68	13	0	3	0	5	0	4	0	9	220	843	0	0	0	0
5:15 PM	0	46	46	4	0	4	59	6	0	3	1	10	0	6	0	14	199		0	0	0	0
5:30 PM	0	46	67	3	0	3	70	16	0	7	1	6	0	5	0	13	237		0	0	0	0
5:45 PM	0	45	45	6	0	0	49	2	0	4	1	3	0	11	0	21	187		0	0	0	0
Count Total	1	506	515	27	0	11	528	60	0	28	11	36	0	50	0	107	1,880		0	0	0	0
Peak Hour	1	312	301	11	0	2	282	23	0	11	8	12	0	24	0	50	1,037		0	0	0	0

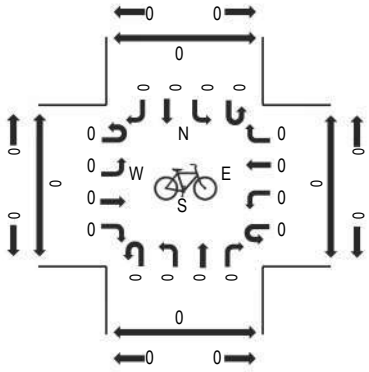
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 6 PETERSON RD & US 24 WB RAMPS AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

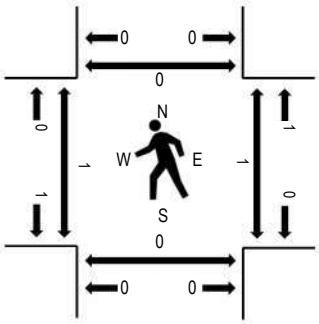
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

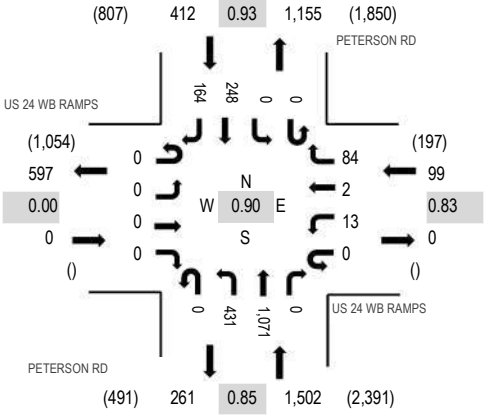
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 WB RAMPS Eastbound				US 24 WB RAMPS Westbound				PETERSON RD Northbound				PETERSON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	77	0	12	0	72	59	0	0	0	138	74	432	1,846	0	0	0	0
7:15 AM	0	0	0	0	0	66	0	11	0	91	86	0	0	0	163	73	490	1,794	0	1	0	0
7:30 AM	0	0	0	0	0	67	0	8	0	78	109	0	0	0	144	59	465	1,655	1	0	0	0
7:45 AM	0	0	0	0	0	61	0	10	0	93	90	0	0	0	148	57	459	1,459	0	0	0	0
8:00 AM	0	0	0	0	0	52	1	16	0	77	69	0	0	0	123	42	380	1,247	0	0	0	0
8:15 AM	0	0	0	0	0	45	1	15	0	68	63	0	0	0	115	44	351		0	0	0	0
8:30 AM	0	0	0	0	0	39	0	5	0	65	64	0	0	0	58	38	269		0	1	0	0
8:45 AM	0	0	0	0	0	21	0	7	0	55	61	0	0	0	71	32	247		0	0	0	0
Count Total	0	0	0	0	0	428	2	84	0	599	601	0	0	0	960	419	3,093		1	2	0	0
Peak Hour	0	0	0	0	0	271	0	41	0	334	344	0	0	0	593	263	1,846		1	1	0	0

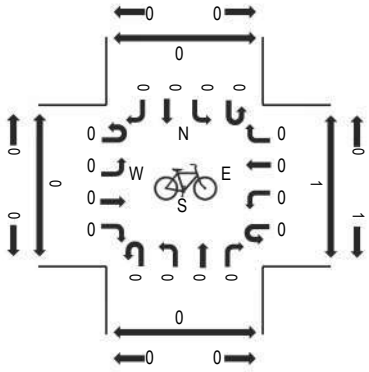
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 6 PETERSON RD & US 24 WB RAMPS PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

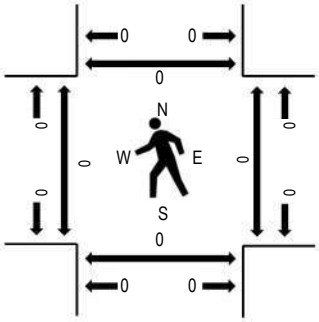
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

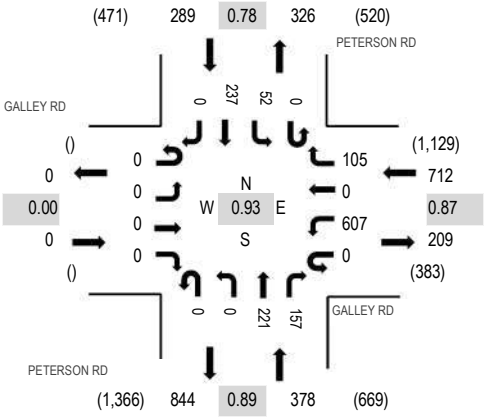
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 WB RAMPS Eastbound				US 24 WB RAMPS Westbound				PETERSON RD Northbound				PETERSON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	4	1	20	0	121	323	0	0	0	60	31	560	2,013	0	0	0	0
4:15 PM	0	0	0	0	0	3	1	26	0	114	246	0	0	0	69	46	505	1,867	0	0	0	0
4:30 PM	0	0	0	0	0	3	0	22	0	108	267	0	0	0	64	40	504	1,707	0	0	0	0
4:45 PM	0	0	0	0	0	3	0	16	0	88	235	0	0	0	55	47	444	1,544	0	0	0	0
5:00 PM	0	0	0	0	0	1	1	30	0	89	184	0	0	0	53	56	414	1,382	0	0	0	0
5:15 PM	0	0	0	0	0	3	0	17	1	66	159	0	0	0	58	41	345		3	0	0	0
5:30 PM	0	0	0	0	0	7	0	21	0	66	148	0	0	0	53	46	341		0	0	0	0
5:45 PM	0	0	0	0	0	4	0	14	0	54	122	0	0	0	50	38	282		2	0	0	0
Count Total	0	0	0	0	0	28	3	166	1	706	1,684	0	0	0	462	345	3,395		5	0	0	0
Peak Hour	0	0	0	0	0	13	2	84	0	431	1,071	0	0	0	248	164	2,013		0	0	0	0

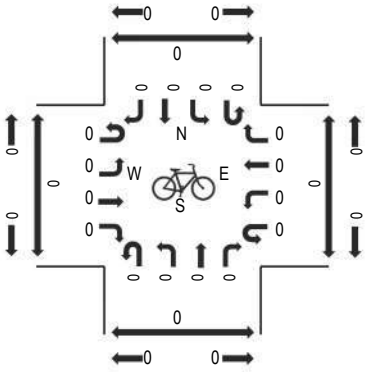
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 7 PETERSON RD & GALLEY RD AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

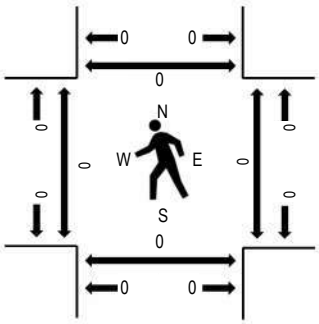
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

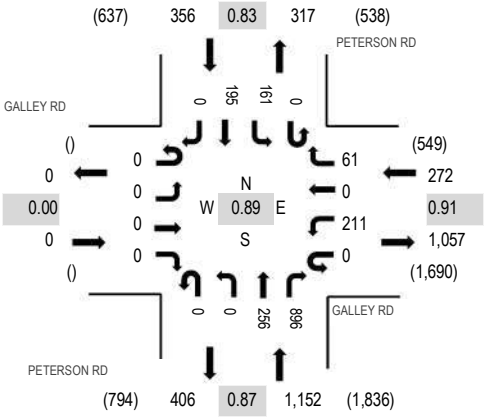
Traffic Counts - Motorized Vehicles

Interval Start Time	GALLEY RD Eastbound				GALLEY RD Westbound				PETERSON RD Northbound				PETERSON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	147	0	25	0	0	42	32	0	5	56	0	307	1,379	0	0	0	0
7:15 AM	0	0	0	0	0	182	0	23	0	0	61	36	0	4	52	0	358	1,348	0	0	0	0
7:30 AM	0	0	0	0	0	142	0	26	0	0	67	42	0	22	71	0	370	1,242	0	0	0	0
7:45 AM	0	0	0	0	0	136	0	31	0	0	51	47	0	21	58	0	344	1,036	0	0	0	0
8:00 AM	0	0	0	0	0	114	0	15	0	0	48	36	0	6	57	0	276	890	0	0	0	0
8:15 AM	0	0	0	0	0	117	0	16	0	0	38	38	0	7	36	0	252		0	0	0	0
8:30 AM	0	0	0	0	0	66	0	6	0	0	27	31	0	5	29	0	164		0	0	0	0
8:45 AM	0	0	0	0	0	74	0	9	0	0	35	38	0	13	29	0	198		1	0	0	1
Count Total	0	0	0	0	0	978	0	151	0	0	369	300	0	83	388	0	2,269		1	0	0	1
Peak Hour	0	0	0	0	0	607	0	105	0	0	221	157	0	52	237	0	1,379		0	0	0	0

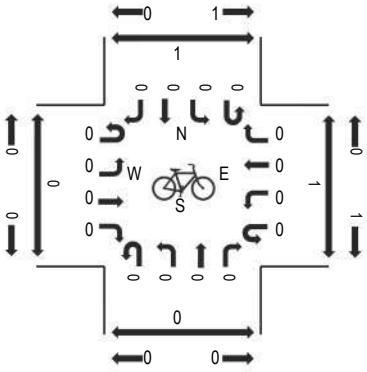
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 7 PETERSON RD & GALLEY RD PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

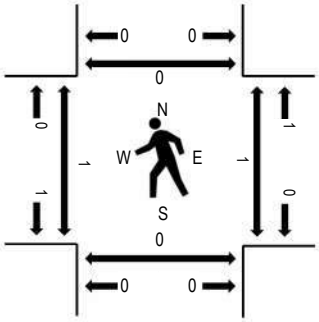
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

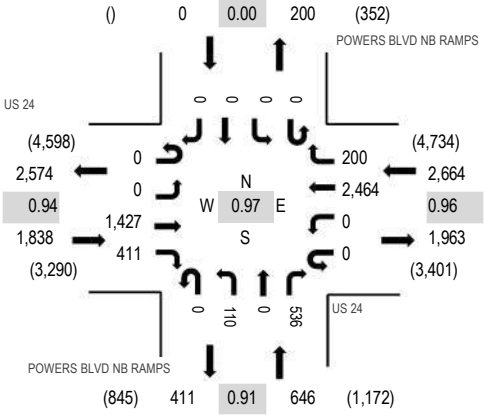
Traffic Counts - Motorized Vehicles

Interval Start Time	GALLEY RD Eastbound				GALLEY RD Westbound				PETERSON RD Northbound				PETERSON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	43	0	19	0	0	85	246	0	41	66	0	500	1,780	0	0	0	0
4:15 PM	0	0	0	0	0	55	0	19	0	0	52	228	0	41	52	0	447	1,645	1	0	0	0
4:30 PM	0	0	0	0	0	57	0	16	0	0	66	224	0	50	40	0	453	1,519	0	1	0	0
4:45 PM	0	0	0	0	0	56	0	7	0	0	53	198	0	29	37	0	380	1,356	0	0	0	0
5:00 PM	0	0	0	0	0	62	0	17	0	0	43	166	0	33	44	0	365	1,242	1	0	0	0
5:15 PM	0	0	0	0	0	52	0	16	0	0	42	134	0	32	45	0	321		0	0	0	0
5:30 PM	0	0	0	0	0	53	0	9	0	0	48	116	0	24	40	0	290		0	0	0	0
5:45 PM	0	0	0	0	0	56	0	12	0	0	34	101	0	27	36	0	266		0	0	0	0
Count Total	0	0	0	0	0	434	0	115	0	0	423	1,413	0	277	360	0	3,022		2	1	0	0
Peak Hour	0	0	0	0	0	211	0	61	0	0	256	896	0	161	195	0	1,780		1	1	0	0

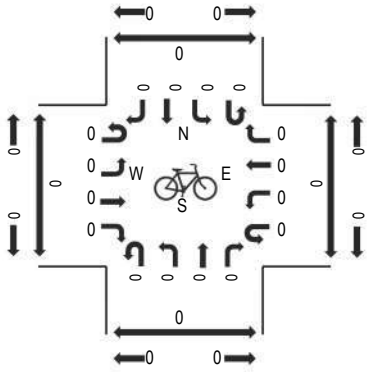
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 8 POWERS BLVD NB RAMPS & US 24 AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

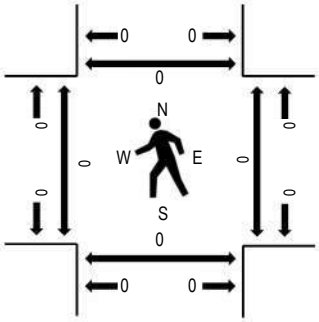
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

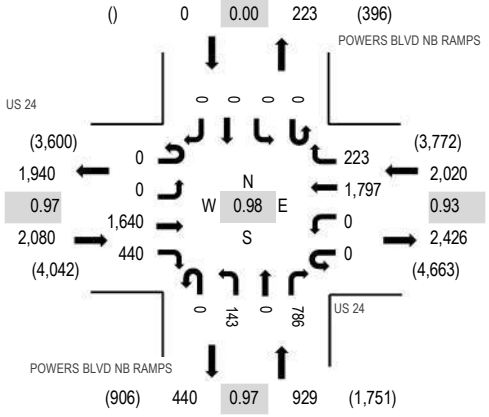
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				POWERS BLVD NB RAMPS Northbound				POWERS BLVD NB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	325	84	0	0	639	50	0	10	0	116	0	0	0	0	1,224	5,148	0	0	0	0
7:15 AM	0	0	387	94	0	0	590	45	0	31	0	150	0	0	0	0	1,297	5,024	0	0	0	0
7:30 AM	0	0	362	129	0	0	610	39	0	32	0	134	0	0	0	0	1,306	4,809	0	0	0	0
7:45 AM	0	0	353	104	0	0	625	66	0	37	0	136	0	0	0	0	1,321	4,483	0	0	0	0
8:00 AM	0	0	288	103	0	0	535	36	0	24	0	114	0	0	0	0	1,100	4,048	0	0	0	0
8:15 AM	0	0	273	116	0	0	518	37	0	36	0	102	0	0	0	0	1,082		0	0	0	0
8:30 AM	0	0	238	111	0	0	466	42	0	19	0	104	0	0	0	0	980		0	0	0	0
8:45 AM	0	0	219	104	0	0	399	37	0	27	0	100	0	0	0	0	886		0	0	0	0
Count Total	0	0	2,445	845	0	0	4,382	352	0	216	0	956	0	0	0	0	9,196		0	0	0	0
Peak Hour	0	0	1,427	411	0	0	2,464	200	0	110	0	536	0	0	0	0	5,148		0	0	0	0

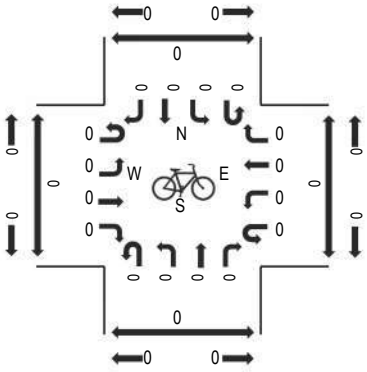
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 8 POWERS BLVD NB RAMPS & US 24 PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

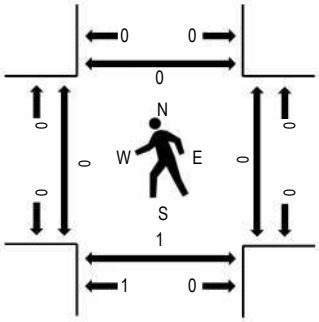
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

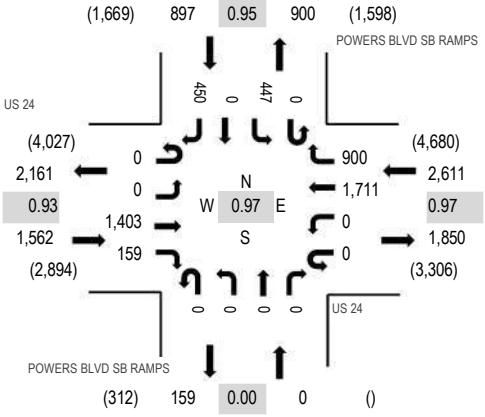
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				POWERS BLVD NB RAMPS Northbound				POWERS BLVD NB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	387	112	0	0	481	64	0	35	0	205	0	0	0	0	1,284	5,029	0	0	0	0
4:15 PM	0	0	414	122	0	0	431	64	0	32	0	201	0	0	0	0	1,264	4,972	0	0	1	0
4:30 PM	0	0	419	101	0	0	457	61	0	48	0	191	0	0	0	0	1,277	4,886	0	0	0	0
4:45 PM	0	0	420	105	0	0	428	34	0	28	0	189	0	0	0	0	1,204	4,714	0	0	0	0
5:00 PM	0	0	393	94	0	0	469	48	0	15	0	208	0	0	0	0	1,227	4,536	0	0	0	0
5:15 PM	0	0	393	121	0	0	377	51	0	20	0	216	0	0	0	0	1,178		0	0	0	0
5:30 PM	0	0	366	123	0	0	381	41	0	28	0	166	0	0	0	0	1,105		0	0	0	0
5:45 PM	0	0	344	128	0	0	352	33	0	18	0	151	0	0	0	0	1,026		0	0	0	0
Count Total	0	0	3,136	906	0	0	3,376	396	0	224	0	1,527	0	0	0	0	9,565		0	0	1	0
Peak Hour	0	0	1,640	440	0	0	1,797	223	0	143	0	786	0	0	0	0	5,029		0	0	1	0

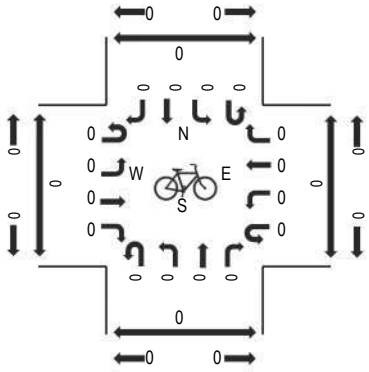
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 POWERS BLVD SB RAMPS & US 24 AM
Date: Thursday, May 15, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

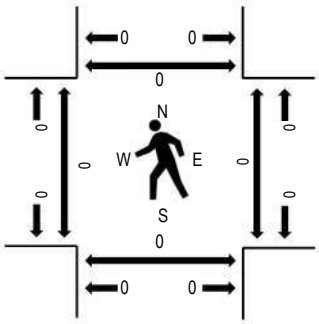
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

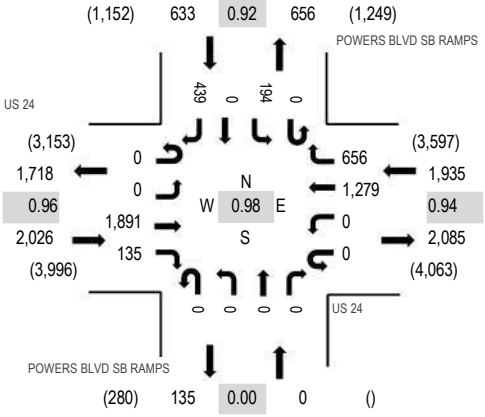
Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				POWERS BLVD SB RAMPS Northbound				POWERS BLVD SB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	295	35	0	0	418	240	0	0	0	0	0	115	0	120	1,223	5,070	0	0	0	0
7:15 AM	0	0	376	44	0	0	406	219	0	0	0	0	0	109	0	105	1,259	4,968	0	0	0	0
7:30 AM	0	0	367	38	0	0	445	207	0	0	0	0	0	127	0	103	1,287	4,837	0	0	0	0
7:45 AM	0	0	365	42	0	0	442	234	0	0	0	0	0	96	0	122	1,301	4,560	0	0	0	0
8:00 AM	0	0	307	29	0	0	393	178	0	0	0	0	0	86	0	128	1,121	4,173	0	0	0	0
8:15 AM	0	0	308	30	0	0	375	193	0	0	0	0	0	83	0	139	1,128		0	0	0	0
8:30 AM	0	0	293	44	0	0	319	175	0	0	0	0	0	54	0	125	1,010		0	0	0	0
8:45 AM	0	0	271	50	0	0	284	152	0	0	0	0	0	54	0	103	914		0	0	0	0
Count Total	0	0	2,582	312	0	0	3,082	1,598	0	0	0	0	0	724	0	945	9,243		0	0	0	0
Peak Hour	0	0	1,403	159	0	0	1,711	900	0	0	0	0	0	447	0	450	5,070		0	0	0	0

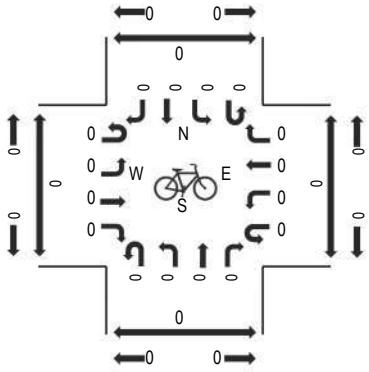
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 POWERS BLVD SB RAMPS & US 24 PM
Date: Thursday, May 15, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

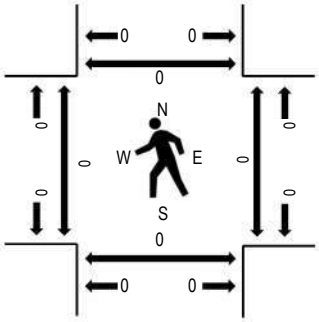
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	US 24 Eastbound				US 24 Westbound				POWERS BLVD SB RAMPS Northbound				POWERS BLVD SB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	455	37	0	0	335	179	0	0	0	0	0	46	0	103	1,155	4,594	0	0	0	0
4:15 PM	0	0	494	31	0	0	308	153	0	0	0	0	0	43	0	113	1,142	4,534	0	0	0	0
4:30 PM	0	0	469	34	0	0	337	165	0	0	0	0	0	52	0	120	1,177	4,435	0	0	0	0
4:45 PM	0	0	473	33	0	0	299	159	0	0	0	0	0	53	0	103	1,120	4,295	0	0	0	0
5:00 PM	0	0	454	35	0	0	310	173	0	0	0	0	0	37	0	86	1,095	4,151	0	0	0	0
5:15 PM	0	0	468	40	0	0	254	142	0	0	0	0	0	52	0	87	1,043		0	0	0	0
5:30 PM	0	0	453	34	0	0	271	143	0	0	0	0	0	41	0	95	1,037		0	0	0	0
5:45 PM	0	0	450	36	0	0	234	135	0	0	0	0	0	23	0	98	976		0	0	0	0
Count Total	0	0	3,716	280	0	0	2,348	1,249	0	0	0	0	0	347	0	805	8,745		0	0	0	0
Peak Hour	0	0	1,891	135	0	0	1,279	656	0	0	0	0	0	194	0	439	4,594		0	0	0	0

All Traffic Data Services

10 - PETERSON RD NORTH OF US 24 WB RAMPS

Time	NB	SB	Total
5/15/2025	4	5	9
5/15/2025 12:15:00 AM	10	2	12
5/15/2025 12:30:00 AM	5	7	12
5/15/2025 12:45:00 AM	3	4	7
5/15/2025 1:00:00 AM	5	5	10
5/15/2025 1:15:00 AM	6	1	7
5/15/2025 1:30:00 AM	4	3	7
5/15/2025 1:45:00 AM	5	2	7
5/15/2025 2:00:00 AM	3	5	8
5/15/2025 2:15:00 AM	3	3	6
5/15/2025 2:30:00 AM	6	4	10
5/15/2025 2:45:00 AM	7	7	14
5/15/2025 3:00:00 AM	4	8	12
5/15/2025 3:15:00 AM	4	1	5
5/15/2025 3:30:00 AM	3	9	12
5/15/2025 3:45:00 AM	9	9	18
5/15/2025 4:00:00 AM	4	12	16
5/15/2025 4:15:00 AM	2	6	8
5/15/2025 4:30:00 AM	4	18	22
5/15/2025 4:45:00 AM	8	16	24
5/15/2025 5:00:00 AM	6	22	28
5/15/2025 5:15:00 AM	13	28	41
5/15/2025 5:30:00 AM	11	49	60
5/15/2025 5:45:00 AM	25	55	80
5/15/2025 6:00:00 AM	28	113	141
5/15/2025 6:15:00 AM	44	137	181
5/15/2025 6:30:00 AM	42	146	188
5/15/2025 6:45:00 AM	80	215	295
5/15/2025 7:00:00 AM	71	212	283
5/15/2025 7:15:00 AM	97	236	333
5/15/2025 7:30:00 AM	117	203	320
5/15/2025 7:45:00 AM	100	205	305
5/15/2025 8:00:00 AM	85	165	250
5/15/2025 8:15:00 AM	78	159	237
5/15/2025 8:30:00 AM	69	96	165
5/15/2025 8:45:00 AM	68	103	171
5/15/2025 9:00:00 AM	57	74	131
5/15/2025 9:15:00 AM	67	82	149
5/15/2025 9:30:00 AM	52	72	124
5/15/2025 9:45:00 AM	64	58	122
5/15/2025 10:00:00 AM	58	66	124
5/15/2025 10:15:00 AM	72	63	135
5/15/2025 10:30:00 AM	68	79	147
5/15/2025 10:45:00 AM	59	60	119
5/15/2025 11:00:00 AM	103	61	164
5/15/2025 11:15:00 AM	93	55	148
5/15/2025 11:30:00 AM	99	68	167
5/15/2025 11:45:00 AM	115	81	196
Total	1,940	3,090	5,030
Percentage	38.6%	61.4%	
Peak Hour	11:00 AM	6:45 AM	7:00 AM
Volume	410	866	1,241
PHF	0.891	0.917	0.932

All Traffic Data Services

10 - PETERSON RD NORTH OF US 24 WB RAMPS

Time	NB	SB	Total
5/15/2025 12:00:00 PM	94	77	171
5/15/2025 12:15:00 PM	94	87	181
5/15/2025 12:30:00 PM	85	83	168
5/15/2025 12:45:00 PM	78	63	141
5/15/2025 1:00:00 PM	90	67	157
5/15/2025 1:15:00 PM	76	60	136
5/15/2025 1:30:00 PM	96	67	163
5/15/2025 1:45:00 PM	92	66	158
5/15/2025 2:00:00 PM	131	84	215
5/15/2025 2:15:00 PM	130	75	205
5/15/2025 2:30:00 PM	160	72	232
5/15/2025 2:45:00 PM	147	78	225
5/15/2025 3:00:00 PM	203	111	314
5/15/2025 3:15:00 PM	231	102	333
5/15/2025 3:30:00 PM	255	106	361
5/15/2025 3:45:00 PM	286	107	393
5/15/2025 4:00:00 PM	343	91	434
5/15/2025 4:15:00 PM	272	115	387
5/15/2025 4:30:00 PM	289	104	393
5/15/2025 4:45:00 PM	251	102	353
5/15/2025 5:00:00 PM	214	109	323
5/15/2025 5:15:00 PM	176	99	275
5/15/2025 5:30:00 PM	169	99	268
5/15/2025 5:45:00 PM	136	88	224
5/15/2025 6:00:00 PM	83	73	156
5/15/2025 6:15:00 PM	87	84	171
5/15/2025 6:30:00 PM	79	84	163
5/15/2025 6:45:00 PM	65	76	141
5/15/2025 7:00:00 PM	60	55	115
5/15/2025 7:15:00 PM	53	49	102
5/15/2025 7:30:00 PM	55	46	101
5/15/2025 7:45:00 PM	55	62	117
5/15/2025 8:00:00 PM	61	39	100
5/15/2025 8:15:00 PM	52	51	103
5/15/2025 8:30:00 PM	41	42	83
5/15/2025 8:45:00 PM	31	29	60
5/15/2025 9:00:00 PM	38	19	57
5/15/2025 9:15:00 PM	32	31	63
5/15/2025 9:30:00 PM	26	26	52
5/15/2025 9:45:00 PM	24	17	41
5/15/2025 10:00:00 PM	29	27	56
5/15/2025 10:15:00 PM	23	23	46
5/15/2025 10:30:00 PM	24	21	45
5/15/2025 10:45:00 PM	19	22	41
5/15/2025 11:00:00 PM	8	13	21
5/15/2025 11:15:00 PM	20	14	34
5/15/2025 11:30:00 PM	9	15	24
5/15/2025 11:45:00 PM	13	13	26
Total	5,085	3,043	8,128
Percentage	62.6%	37.4%	
Peak Hour	3:45 PM	4:15 PM	3:45 PM
Volume	1,190	430	1,607
PHF	0.867	0.935	0.926
Grand Total	7,025	6,133	13,158
Percentage	53.4%	46.6%	

APPENDIX B

Level of Service Definitions

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: Chapter 19 – Signalized Intersections.

Motorized Vehicle Level of Service (LOS) for Signalized Intersections

Levels of service are defined to represent reasonable ranges in control delay.

LOS A Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
≤ 10	A	F
> 10 – 20	B	F
> 20 – 35	C	F
> 35 – 55	D	F
> 55 – 80	E	F
> 80	F	F

Note: [a] For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: Chapter 20 – Two-Way Stop-Controlled Intersections, Chapter 21 – All-Way Stop-Controlled Intersections, and Chapter 22 - Roundabouts.

Motorized Vehicle Level of Service (LOS) for Unsignalized & Roundabout Intersections

LOS is a quantitative stratification of performance measure(s) representing quality of service. Quality of service describes how well a transportation facility or service operates from a traveler's perspective. LOS is measured on an A – F scale, with LOS A representing the best operating conditions from a traveler's perspective.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
0 – 10	A	F
> 10 – 15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

[a] For approaches and intersectionwide assessment, LOS is defined solely by control delay.

APPENDIX C

Capacity Worksheets

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	10	1031	710	2	582	80	323	434	2	273	1071	41
Future Volume (vph)	10	1031	710	2	582	80	323	434	2	273	1071	41
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			649			164			164			164
Lane Group Flow (vph)	11	1121	772	2	633	87	351	472	2	297	1164	45
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	44.0		10.0	44.0		18.0	45.0		21.0	48.0	
Total Split (%)	8.3%	36.7%		8.3%	36.7%		15.0%	37.5%		17.5%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	47.0	120.0	5.0	47.0	120.0	13.0	40.4	120.0	14.6	42.0	120.0
Actuated g/C Ratio	0.04	0.39	1.00	0.04	0.39	1.00	0.11	0.34	1.00	0.12	0.35	1.00
v/c Ratio	0.15	0.81	0.49	0.03	0.46	0.05	0.95	0.40	0.00	0.71	0.94	0.03
Control Delay (s/veh)	60.2	38.6	1.1	56.0	29.0	0.1	81.8	38.4	0.0	60.5	52.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.2	38.6	1.1	56.0	29.0	0.1	81.8	38.4	0.0	60.5	52.9	0.0
LOS	E	D	A	E	C	A	F	D	A	E	D	A
Approach Delay (s/veh)		23.5			25.6			56.8			52.9	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	9	396	0	2	186	0	144	131	0	116	464	0
Queue Length 95th (ft)	29	#608	0	11	276	0	#240	258	m0	164	#607	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000		600	1000		700
Base Capacity (vph)	73	1386	1583	73	1386	1583	371	1191	1583	457	1238	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.81	0.49	0.03	0.46	0.05	0.95	0.40	0.00	0.65	0.94	0.03

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay (s/veh): 38.3	Intersection LOS: D
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	22	70	285	387	43	0	141	724	448	4	1723	62
Future Volume (vph)	22	70	285	387	43	0	141	724	448	4	1723	62
Satd. Flow (prot)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255						487			200
Lane Group Flow (vph)	24	76	310	421	47	0	153	787	487	4	1873	67
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	10.0		20.0	20.0		16.0	80.0		10.0	74.0	74.0
Total Split (%)	8.3%	8.3%		16.7%	16.7%		13.3%	66.7%		8.3%	61.7%	61.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	5.0	120.0	15.0	19.0		11.0	82.0	120.0	5.0	68.0	68.0
Actuated g/C Ratio	0.04	0.04	1.00	0.13	0.16		0.09	0.68	1.00	0.04	0.57	0.57
v/c Ratio	0.17	0.99	0.20	0.98	0.08		0.94	0.33	0.31	0.05	0.93	0.07
Control Delay (s/veh)	58.3	156.8	0.3	91.6	46.2		112.0	8.6	0.5	52.0	32.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.3	156.8	0.3	91.6	46.2		112.0	8.6	0.5	52.0	32.5	0.3
LOS	E	F	A	F	D		F	A	A	D	C	A
Approach Delay (s/veh)		32.7			87.1			16.9			31.4	
Approach LOS		C			F			B			C	
Queue Length 50th (ft)	9	61	0	172	17		122	112	0	3	442	0
Queue Length 95th (ft)	24	#166	0	#278	36		#257	189	0	m5	m#521	m0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480			925		600	785		785
Base Capacity (vph)	143	77	1583	429	560		162	2418	1583	73	2005	983
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.99	0.20	0.98	0.08		0.94	0.33	0.31	0.05	0.93	0.07

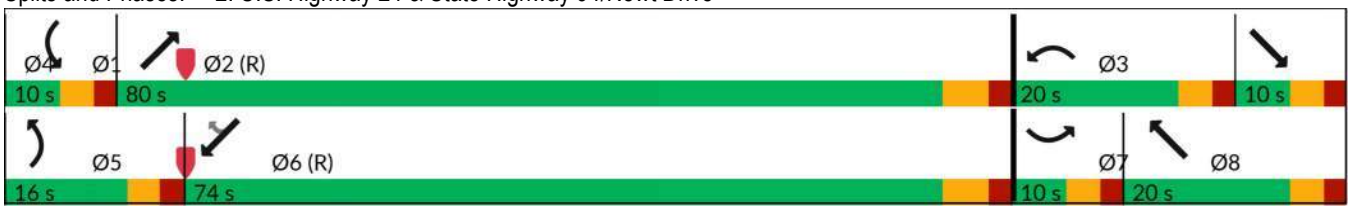
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay (s/veh): 32.8	Intersection LOS: C
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	4.4
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	50	201	157	213
Demand Flow Rate, veh/h	51	205	160	217
Vehicles Circulating, veh/h	298	26	284	91
Vehicles Exiting, veh/h	10	418	65	140
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	4.0	5.0	4.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	51	205	160	217
Cap Entry Lane, veh/h	1018	1344	1033	1258
Entry HV Adj Factor	0.983	0.982	0.979	0.981
Flow Entry, veh/h	50	201	157	213
Cap Entry, veh/h	1001	1319	1011	1233
V/C Ratio	0.050	0.153	0.155	0.173
Control Delay, s/veh	4.0	4.0	5.0	4.4
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	145	434	89	0	392	0	199	48	182	666	0
Future Volume (vph)	89	145	434	89	0	392	0	199	48	182	666	0
Satd. Flow (prot)	0	1827	1583	1770	0	1583	0	3539	1583	1770	3539	0
Flt Permitted		0.981		0.200						0.508		
Satd. Flow (perm)	0	1827	1583	373	0	1583	0	3539	1583	946	3539	0
Satd. Flow (RTOR)			472			426			164			
Lane Group Flow (vph)	0	255	472	97	0	426	0	216	52	198	724	0
Turn Type	Perm	NA	Free	Perm		Perm		NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free	3		3			2	6		
Detector Phase	4	4		3		3		2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0		4.0		4.0	4.0	4.0	4.0	
Minimum Split (s)	10.0	10.0		10.0		10.0		10.0	10.0	10.0	10.0	
Total Split (s)	26.0	26.0		26.0		26.0		30.0	30.0	18.0	48.0	
Total Split (%)	26.0%	26.0%		26.0%		26.0%		30.0%	30.0%	18.0%	48.0%	
Yellow Time (s)	4.0	4.0		4.0		4.0		4.0	4.0	4.0	3.0	
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0	6.0	6.0	5.0	
Lead/Lag	Lag	Lag		Lead		Lead		Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes		Yes		Yes	Yes	Yes		
Recall Mode	None	None		None		None		C-Max	C-Max	None	C-Max	
Act Effct Green (s)		17.7	100.0	20.0		20.0		27.2	27.2	44.3	45.3	
Actuated g/C Ratio		0.18	1.00	0.20		0.20		0.27	0.27	0.44	0.45	
v/c Ratio		0.79	0.30	1.31		0.65		0.22	0.09	0.39	0.45	
Control Delay (s/veh)		57.0	0.5	244.3		8.7		30.2	0.3	20.7	20.4	
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.8	
Total Delay (s/veh)		57.0	0.5	244.3		8.7		30.2	0.3	20.7	21.2	
LOS		E	A	F		A		C	A	C	C	
Approach Delay (s/veh)		20.3			52.4			24.4			21.1	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)		156	0	~81		0		59	0	81	170	
Queue Length 95th (ft)		#250	0	#187		87		93	0	134	225	
Internal Link Dist (ft)		432			644			521			132	
Turn Bay Length (ft)			465	300		325			300	180		
Base Capacity (vph)		365	1583	74		657		961	549	519	1603	
Starvation Cap Reductn		0	0	0		0		0	0	0	542	
Spillback Cap Reductn		0	0	0		0		0	0	0	0	
Storage Cap Reductn		0	0	0		0		0	0	0	0	
Reduced v/c Ratio		0.70	0.30	1.31		0.65		0.22	0.09	0.38	0.68	

Intersection Summary

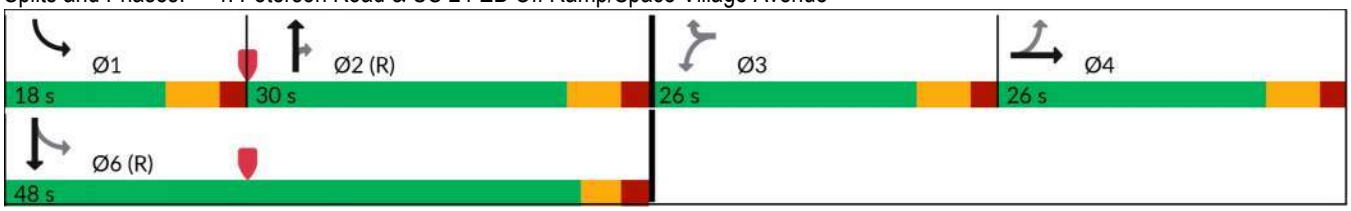
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 20 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.31

Intersection Signal Delay (s/veh): 27.9	Intersection LOS: C
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Peterson Road & US 24 EB Off Ramp/Space Village Avenue



Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	256	9	8	459	29	13	5	11	67	0	8
Future Vol, veh/h	98	256	9	8	459	29	13	5	11	67	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	155	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	278	10	9	499	32	14	5	12	73	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	530	0	0	288	0	0	1008	1039	278	1010	1017	-
Stage 1	-	-	-	-	-	-	491	491	-	516	516	-
Stage 2	-	-	-	-	-	-	516	548	-	494	501	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1037	-	-	1289	-	-	214	221	831	213	228	0
Stage 1	-	-	-	-	-	-	585	555	-	542	534	0
Stage 2	-	-	-	-	-	-	542	517	-	583	549	0
Platoon blocked, %		-	-	0	-	-	0	0	0	0	0	
Mov Cap-1 Maneuver	1037	-	-	1289	-	-	191	197	831	183	203	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	191	197	-	183	203	-
Stage 1	-	-	-	-	-	-	525	498	-	538	530	-
Stage 2	-	-	-	-	-	-	538	514	-	510	493	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.39	0.13	19.98	37.21
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	272	1037	-	-	1289	-	-	183	-
HCM Lane V/C Ratio	0.116	0.103	-	-	0.007	-	-	0.399	-
HCM Ctrl Dly (s/v)	20	8.9	-	-	7.8	-	-	37.2	0
HCM Lane LOS	C	A	-	-	A	-	-	E	A
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	-	1.8	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	271	0	41	334	344	0	0	593	263
Future Volume (vph)	0	0	0	271	0	41	334	344	0	0	593	263
Satd. Flow (prot)	0	0	0	1770	1583	0	1770	3539	0	0	3539	1583
Flt Permitted				0.950			0.247					
Satd. Flow (perm)	0	0	0	1770	1583	0	460	3539	0	0	3539	1583
Satd. Flow (RTOR)					467							273
Lane Group Flow (vph)	0	0	0	295	45	0	363	374	0	0	645	286
Turn Type				Perm	NA		pm+pt	NA			NA	Free
Protected Phases					8		5	2			6	
Permitted Phases				8			2					Free
Detector Phase				8	8		5	2			6	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				10.0	10.0		10.0	10.0			10.0	
Total Split (s)				20.0	20.0		17.0	40.0			23.0	
Total Split (%)				33.3%	33.3%		28.3%	66.7%			38.3%	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0		6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode				None	None		None	C-Max			C-Max	
Act Effct Green (s)				13.0	13.0		35.0	35.0			18.5	60.0
Actuated g/C Ratio				0.22	0.22		0.58	0.58			0.31	1.00
v/c Ratio				0.77	0.06		0.73	0.18			0.59	0.18
Control Delay (s/veh)				37.1	0.2		18.1	6.4			12.5	0.2
Queue Delay				0.0	0.0		0.0	0.0			0.0	0.0
Total Delay (s/veh)				37.1	0.2		18.1	6.4			12.5	0.2
LOS				D	A		B	A			B	A
Approach Delay (s/veh)					32.2			12.2			8.7	
Approach LOS					C			B			A	
Queue Length 50th (ft)				100	0		65	31			48	0
Queue Length 95th (ft)				#203	0		#160	49			79	0
Internal Link Dist (ft)		250			369			85			241	
Turn Bay Length (ft)				50			180					75
Base Capacity (vph)				413	727		508	2063			1090	1583
Starvation Cap Reductn				0	0		0	0			0	0
Spillback Cap Reductn				0	0		0	0			0	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.71	0.06		0.71	0.18			0.59	0.18

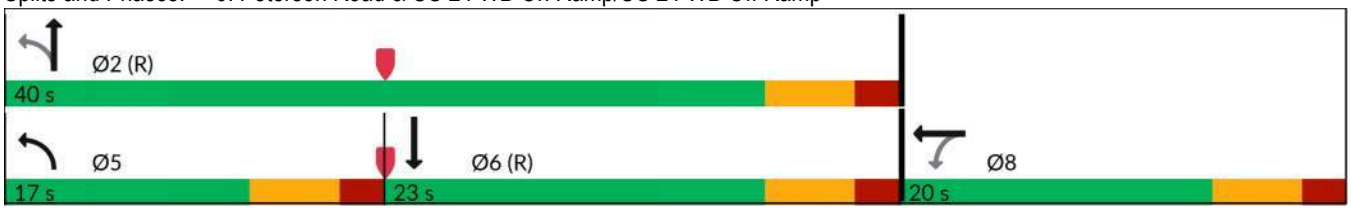
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 14.0	Intersection LOS: B
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Peterson Road & US 24 WB On Ramp/US 24 WB Off Ramp





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	607	105	221	157	52	237
Future Volume (vph)	607	105	221	157	52	237
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		114		171		
Lane Group Flow (vph)	660	114	240	171	57	258
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	
Permitted Phases				2		6
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	25.0	25.0	24.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	40.0%	18.3%	58.3%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	16.9	16.9	18.0	18.0	9.1	32.1
Actuated g/C Ratio	0.28	0.28	0.30	0.30	0.15	0.54
v/c Ratio	0.68	0.22	0.43	0.29	0.21	0.14
Control Delay (s/veh)	22.8	4.7	31.6	15.9	26.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.8	4.7	31.6	15.9	26.6	7.9
LOS	C	A	C	B	C	A
Approach Delay (s/veh)	20.1		25.0			11.3
Approach LOS	C		C			B
Queue Length 50th (ft)	108	0	97	26	19	23
Queue Length 95th (ft)	147	29	161	78	51	43
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1144	603	558	594	269	1895
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.19	0.43	0.29	0.21	0.14

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 19.6	Intersection LOS: B
Intersection Capacity Utilization 45.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Peterson Road & Galley Road



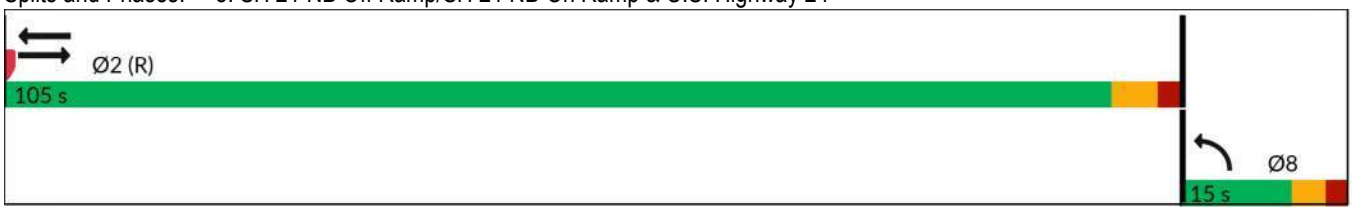
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1427	411	0	2464	200	110	0	536	0	0	0
Future Volume (vph)	0	1427	411	0	2464	200	110	0	536	0	0	0
Satd. Flow (prot)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			181		44				182			
Lane Group Flow (vph)	0	1551	447	0	2895	0	120	0	583	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		105.0			105.0		15.0					
Total Split (%)		87.5%			87.5%		12.5%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		100.0	120.0		100.0		9.0		120.0			
Actuated g/C Ratio		0.83	1.00		0.83		0.08		1.00			
v/c Ratio		0.53	0.28		0.69		0.47		0.37			
Control Delay (s/veh)		4.9	0.4		5.0		59.1		0.7			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		4.9	0.4		5.0		59.1		0.7			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		3.9			5.0			10.6				
Approach LOS		A			A			B				
Queue Length 50th (ft)		167	0		250		47		0			
Queue Length 95th (ft)		183	0		292		78		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2949	1583		4198		286		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.53	0.28		0.69		0.42		0.37			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 5.3	Intersection LOS: A
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



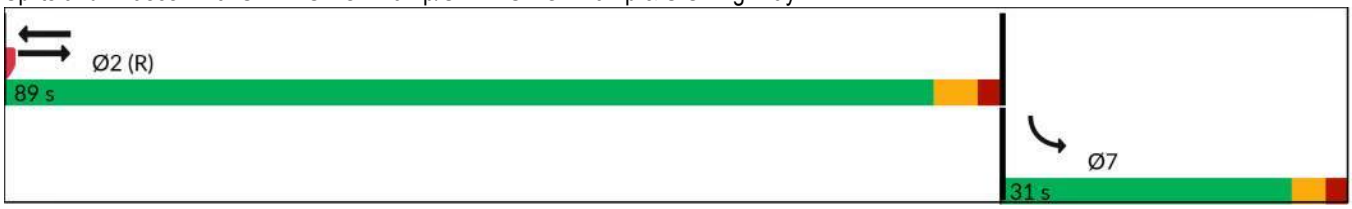
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1403	159	0	1711	900	0	0	0	447	0	450
Future Volume (vph)	0	1403	159	0	1711	900	0	0	0	447	0	450
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			330						282
Lane Group Flow (vph)	0	1525	173	0	1860	978	0	0	0	486	0	489
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		89.0			89.0					31.0		
Total Split (%)		74.2%			74.2%					25.8%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		87.0	120.0		87.0	120.0				22.0		120.0
Actuated g/C Ratio		0.73	1.00		0.73	1.00				0.18		1.00
v/c Ratio		0.41	0.11		0.72	0.62				0.77		0.31
Control Delay (s/veh)		7.2	0.1		8.9	1.8				55.3		0.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		7.2	0.1		8.9	1.8				55.3		0.5
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		6.4			6.4						27.8	
Approach LOS		A			A						C	
Queue Length 50th (ft)		152	0		234	5				189		0
Queue Length 95th (ft)		203	0		256	19				240		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3687	1583		2566	1583				743		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.41	0.11		0.72	0.62				0.65		0.31

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 10.2	Intersection LOS: B
Intersection Capacity Utilization 68.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	23	6	0	1	35	347	3	1	827	9
Future Vol, veh/h	6	0	23	6	0	1	35	347	3	1	827	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	25	7	0	1	38	377	3	1	899	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1171	1363	454	907	1366	190	909	0	0	380	0	0
Stage 1	906	906	-	455	455	-	-	-	-	-	-	-
Stage 2	265	457	-	452	911	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	176	163	553	284	162	*1003	745	-	-	1302	-	-
Stage 1	297	353	-	679	647	-	-	-	-	-	-	-
Stage 2	894	646	-	557	351	-	-	-	-	-	-	-
Platoon blocked, %	0	0		0	0	0		-	-	0	-	-
Mov Cap-1 Maneuver	165	154	553	255	153	*1003	745	-	-	1302	-	-
Mov Cap-2 Maneuver	165	154	-	255	153	-	-	-	-	-	-	-
Stage 1	297	353	-	640	610	-	-	-	-	-	-	-
Stage 2	842	609	-	531	351	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.56	17.95	1.35	0.02
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	323	-	-	372	286	4	-	-
HCM Lane V/C Ratio	0.051	-	-	0.085	0.027	0.001	-	-
HCM Ctrl Dly (s/v)	10.1	0.5	-	15.6	18	7.8	0	-
HCM Lane LOS	B	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.1	0	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	19	607	423	6	1125	248	735	1021	0	165	548	21
Future Volume (vph)	19	607	423	6	1125	248	735	1021	0	165	548	21
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Satd. Flow (RTOR)			460			209						209
Lane Group Flow (vph)	21	660	460	7	1223	270	799	1110	0	179	596	23
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	47.0		10.0	47.0		34.0	50.0		13.0	29.0	
Total Split (%)	8.3%	39.2%		8.3%	39.2%		28.3%	41.7%		10.8%	24.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	50.0	120.0	5.0	48.0	120.0	29.0	44.0		8.0	23.0	120.0
Actuated g/C Ratio	0.04	0.42	1.00	0.04	0.40	1.00	0.24	0.37		0.07	0.19	1.00
v/c Ratio	0.29	0.45	0.29	0.10	0.86	0.17	0.96	0.86		0.79	0.88	0.01
Control Delay (s/veh)	65.9	26.9	0.5	58.3	41.4	0.2	65.3	56.3		78.7	62.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	65.9	26.9	0.5	58.3	41.4	0.2	65.3	56.3		78.7	62.6	0.0
LOS	E	C	A	E	D	A	E	E		E	E	A
Approach Delay (s/veh)		17.0			34.1			60.1			64.4	
Approach LOS		B			C			E			E	
Queue Length 50th (ft)	16	186	0	5	431	0	348	440		72	242	0
Queue Length 95th (ft)	44	277	0	22	#658	0	#466	565		#131	#340	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000			1000		700
Base Capacity (vph)	73	1474	1583	73	1415	1583	829	1297		228	678	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.29	0.45	0.29	0.10	0.86	0.17	0.96	0.86		0.79	0.88	0.01

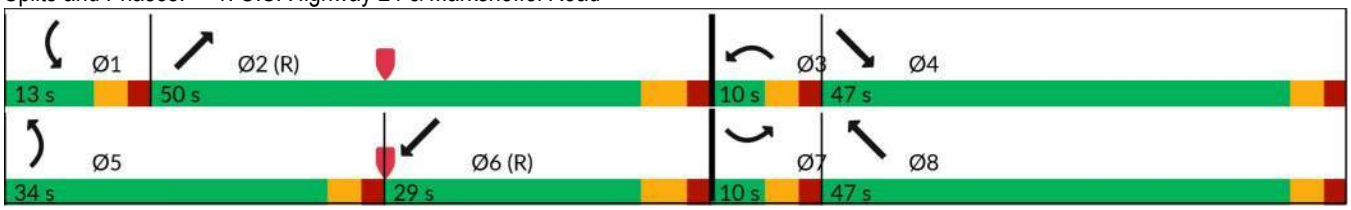
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 44.2	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	22	64	172	371	68	4	196	1737	387	6	923	29
Future Volume (vph)	22	64	172	371	68	4	196	1737	387	6	923	29
Satd. Flow (prot)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255			255			318			200
Lane Group Flow (vph)	24	70	187	403	74	4	213	1888	421	7	1003	32
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	12.0		22.0	24.0		28.0	76.0		10.0	58.0	58.0
Total Split (%)	8.3%	10.0%		18.3%	20.0%		23.3%	63.3%		8.3%	48.3%	48.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	6.9	120.0	16.6	20.2	120.0	18.9	80.8	120.0	5.1	58.9	58.9
Actuated g/C Ratio	0.04	0.06	1.00	0.14	0.17	1.00	0.16	0.67	1.00	0.04	0.49	0.49
v/c Ratio	0.17	0.66	0.12	0.85	0.12	0.00	0.77	0.79	0.27	0.09	0.58	0.04
Control Delay (s/veh)	58.3	83.6	0.2	67.9	43.2	0.0	66.0	18.6	0.4	49.2	35.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.3	83.6	0.2	67.9	43.2	0.0	66.0	18.6	0.4	49.2	35.6	0.3
LOS	E	F	A	E	D	A	E	B	A	D	D	A
Approach Delay (s/veh)		25.9			63.5			19.5			34.7	
Approach LOS		C			E			B			C	
Queue Length 50th (ft)	9	55	0	160	26	0	161	511	0	6	290	0
Queue Length 95th (ft)	24	#126	0	#238	50	0	241	796	0	m11	m364	m0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480		480	925		600	785		785
Base Capacity (vph)	143	108	1583	486	619	1583	339	2383	1583	75	1737	879
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.65	0.12	0.83	0.12	0.00	0.63	0.79	0.27	0.09	0.58	0.04

Intersection Summary

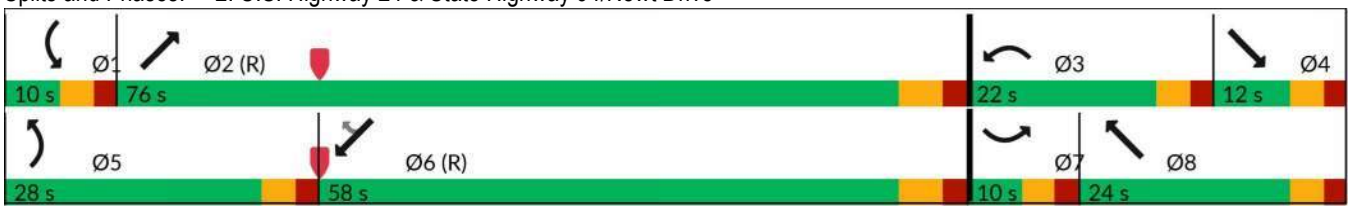
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay (s/veh): 28.5	Intersection LOS: C
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	4.5
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	20	244	61	236
Demand Flow Rate, veh/h	20	249	62	241
Vehicles Circulating, veh/h	346	22	248	138
Vehicles Exiting, veh/h	33	288	118	133
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	4.3	3.9	4.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	20	249	62	241
Cap Entry Lane, veh/h	970	1349	1071	1199
Entry HV Adj Factor	0.983	0.980	0.978	0.981
Flow Entry, veh/h	20	244	61	236
Cap Entry, veh/h	953	1322	1047	1176
V/C Ratio	0.021	0.185	0.058	0.201
Control Delay, s/veh	4.0	4.3	3.9	4.8
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	248	107	16	4	0	337	0	914	292	244	7	0
Future Volume (vph)	248	107	16	4	0	337	0	914	292	244	7	0
Satd. Flow (prot)	0	1799	1583	1770	0	1583	0	3539	1583	1770	3539	0
Flt Permitted		0.966		0.320						0.089		
Satd. Flow (perm)	0	1799	1583	596	0	1583	0	3539	1583	166	3539	0
Satd. Flow (RTOR)			183			293			317			
Lane Group Flow (vph)	0	386	17	4	0	366	0	993	317	265	8	0
Turn Type	Perm	NA	Free	Perm		Perm		NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free	3		3			2	6		
Detector Phase	4	4		3		3		2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0		4.0		4.0	4.0	4.0	4.0	
Minimum Split (s)	10.0	10.0		10.0		10.0		10.0	10.0	10.0	10.0	
Total Split (s)	29.0	29.0		25.0		25.0		47.0	47.0	24.0	71.0	
Total Split (%)	23.2%	23.2%		20.0%		20.0%		37.6%	37.6%	19.2%	56.8%	
Yellow Time (s)	4.0	4.0		4.0		4.0		4.0	4.0	4.0	3.0	
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0	6.0	6.0	5.0	
Lead/Lag	Lag	Lag		Lead		Lead		Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes		Yes		Yes	Yes	Yes		
Recall Mode	None	None		None		None		C-Max	C-Max	None	C-Max	
Act Effct Green (s)		29.5	125.0	12.5		12.5		42.1	42.1	65.0	66.0	
Actuated g/C Ratio		0.24	1.00	0.10		0.10		0.34	0.34	0.52	0.53	
v/c Ratio		0.91	0.01	0.07		0.87		0.83	0.43	0.88	0.00	
Control Delay (s/veh)		73.6	0.0	49.3		33.0		45.8	5.1	59.4	14.0	
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	
Total Delay (s/veh)		73.6	0.0	49.3		33.0		45.8	5.1	59.4	14.0	
LOS		E	A	D		C		D	A	E	B	
Approach Delay (s/veh)		70.5			33.2			35.9			58.0	
Approach LOS		E			C			D			E	
Queue Length 50th (ft)		311	0	3		57		400	0	157	1	
Queue Length 95th (ft)		#577	0	15		174		490	65	#304	5	
Internal Link Dist (ft)		432			644			521			132	
Turn Bay Length (ft)			465	300		325			300	180		
Base Capacity (vph)		424	1583	90		489		1192	743	317	1868	
Starvation Cap Reductn		0	0	0		0		0	0	0	0	
Spillback Cap Reductn		0	0	0		0		0	0	0	0	
Storage Cap Reductn		0	0	0		0		0	0	0	0	
Reduced v/c Ratio		0.91	0.01	0.04		0.75		0.83	0.43	0.84	0.00	

Intersection Summary

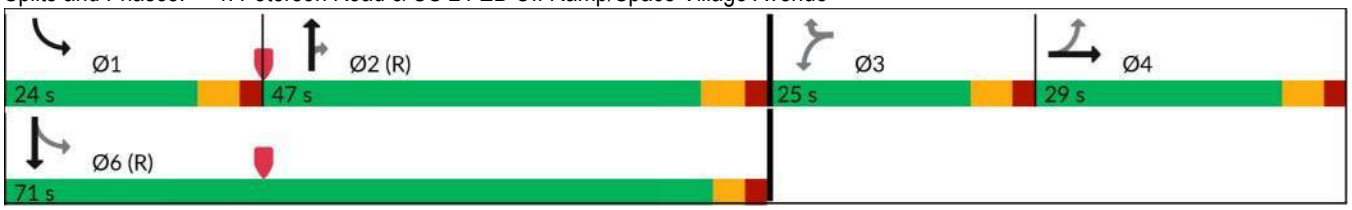
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 44.0	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Peterson Road & US 24 EB Off Ramp/Space Village Avenue



Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	313	301	11	2	282	23	11	8	12	24	0	50
Future Vol, veh/h	313	301	11	2	282	23	11	8	12	24	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	155	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	340	327	12	2	307	25	12	9	13	26	0	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	332	0	0	339	0	0	1318	1343	327	1323	1330	-
Stage 1	-	-	-	-	-	-	1008	1008	-	311	311	-
Stage 2	-	-	-	-	-	-	311	336	-	1012	1020	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1228	-	-	1232	-	-	120	134	789	119	137	0
Stage 1	-	-	-	-	-	-	276	298	-	700	658	0
Stage 2	-	-	-	-	-	-	700	642	-	274	293	0
Platoon blocked, %		-	-	0	-	-	0	0	0	0	0	
Mov Cap-1 Maneuver	1228	-	-	1232	-	-	87	97	789	79	99	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	97	-	79	99	-
Stage 1	-	-	-	-	-	-	200	215	-	698	657	-
Stage 2	-	-	-	-	-	-	698	641	-	187	212	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.53	0.05	39.24	71.44
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	138	1228	-	-	1232	-	-	79	-
HCM Lane V/C Ratio	0.244	0.277	-	-	0.002	-	-	0.33	-
HCM Ctrl Dly (s/v)	39.2	9.1	-	-	7.9	-	-	71.4	0
HCM Lane LOS	E	A	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	0.9	1.1	-	-	0	-	-	1.2	-

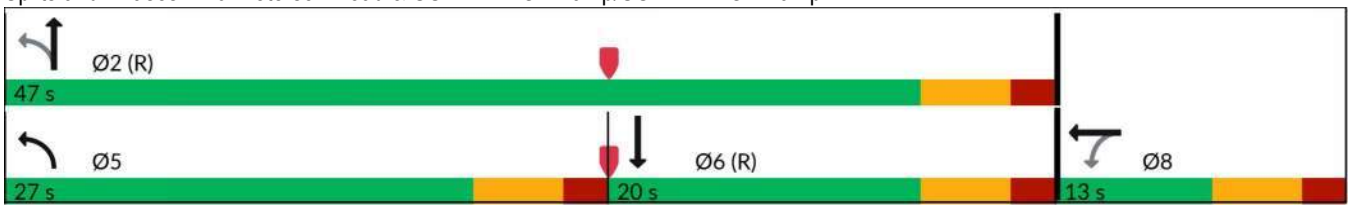
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	13	2	84	431	1071	0	0	248	164
Future Volume (vph)	0	0	0	13	2	84	431	1071	0	0	248	164
Satd. Flow (prot)	0	0	0	1770	1589	0	1770	3539	0	0	3539	1583
Flt Permitted				0.950			0.472					
Satd. Flow (perm)	0	0	0	1770	1589	0	879	3539	0	0	3539	1583
Satd. Flow (RTOR)					91							273
Lane Group Flow (vph)	0	0	0	14	93	0	468	1164	0	0	270	178
Turn Type				Perm	NA		pm+pt	NA			NA	Free
Protected Phases					8		5	2			6	
Permitted Phases				8			2					Free
Detector Phase				8	8		5	2			6	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				10.0	10.0		10.0	10.0			10.0	
Total Split (s)				13.0	13.0		27.0	47.0			20.0	
Total Split (%)				21.7%	21.7%		45.0%	78.3%			33.3%	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0		6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode				None	None		None	C-Max			C-Max	
Act Effct Green (s)				6.2	6.2		44.1	45.3			26.1	60.0
Actuated g/C Ratio				0.10	0.10		0.74	0.76			0.44	1.00
v/c Ratio				0.08	0.38		0.57	0.44			0.18	0.11
Control Delay (s/veh)				24.8	11.9		6.6	4.4			10.6	0.1
Queue Delay				0.0	0.0		0.2	0.2			0.0	0.0
Total Delay (s/veh)				24.8	11.9		6.8	4.6			10.6	0.1
LOS				C	B		A	A			B	A
Approach Delay (s/veh)					13.6			5.2			6.4	
Approach LOS					B			A			A	
Queue Length 50th (ft)				5	1		54	76			23	0
Queue Length 95th (ft)				19	37		99	117			47	0
Internal Link Dist (ft)		250			369			85			242	
Turn Bay Length (ft)				50			180					75
Base Capacity (vph)				206	265		958	2673			1538	1583
Starvation Cap Reductn				0	0		102	677			0	0
Spillback Cap Reductn				0	0		0	0			0	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.07	0.35		0.55	0.58			0.18	0.11

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay (s/veh): 5.9	Intersection LOS: A
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Peterson Road & US 24 WB On Ramp/US 24 WB Off Ramp





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	211	61	256	896	161	195
Future Volume (vph)	211	61	256	896	161	195
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		66		845		
Lane Group Flow (vph)	229	66	278	974	175	212
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	
Permitted Phases				2		6
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	23.0	23.0	26.0	26.0	11.0	37.0
Total Split (%)	38.3%	38.3%	43.3%	43.3%	18.3%	61.7%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	9.3	9.3	20.0	20.0	14.7	39.7
Actuated g/C Ratio	0.16	0.16	0.33	0.33	0.25	0.66
v/c Ratio	0.43	0.22	0.45	0.89	0.40	0.09
Control Delay (s/veh)	25.1	8.5	19.8	21.7	23.2	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.1	8.5	19.8	21.7	23.2	4.1
LOS	C	A	B	C	C	A
Approach Delay (s/veh)	21.4		21.3			12.7
Approach LOS	C		C			B
Queue Length 50th (ft)	39	0	68	105	54	12
Queue Length 95th (ft)	65	27	135	#310	111	24
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1029	521	621	1091	433	2341
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.13	0.45	0.89	0.40	0.09

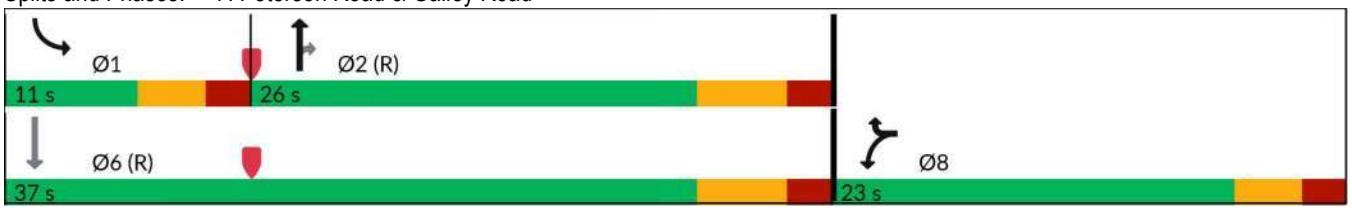
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay (s/veh): 19.6	Intersection LOS: B
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



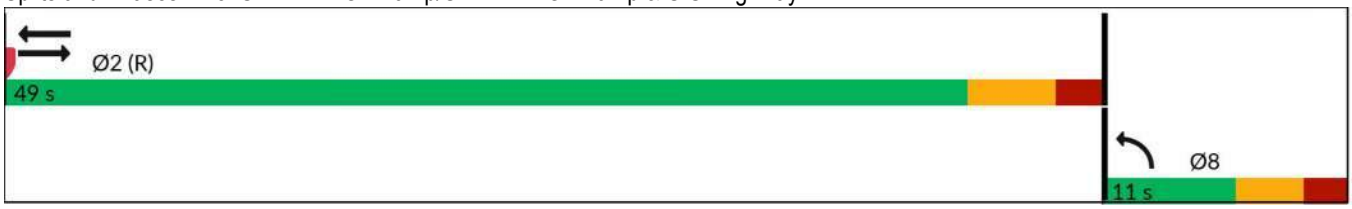
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1640	440	0	1797	223	143	0	786	0	0	0
Future Volume (vph)	0	1640	440	0	1797	223	143	0	786	0	0	0
Satd. Flow (prot)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			336		91				167			
Lane Group Flow (vph)	0	1783	478	0	2195	0	155	0	854	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		49.0			49.0		11.0					
Total Split (%)		81.7%			81.7%		18.3%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		46.4	60.0		46.4		6.0		60.0			
Actuated g/C Ratio		0.77	1.00		0.77		0.10		1.00			
v/c Ratio		0.65	0.30		0.56		0.45		0.54			
Control Delay (s/veh)		4.0	0.4		4.2		30.0		1.3			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		4.0	0.4		4.2		30.0		1.3			
LOS		A	A		A		C		A			
Approach Delay (s/veh)		3.3			4.2			5.7				
Approach LOS		A			A			A				
Queue Length 50th (ft)		122	0		104		28		0			
Queue Length 95th (ft)		144	0		135		54		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2737	1583		3886		343		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.65	0.30		0.56		0.45		0.54			

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay (s/veh): 4.1	Intersection LOS: A
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



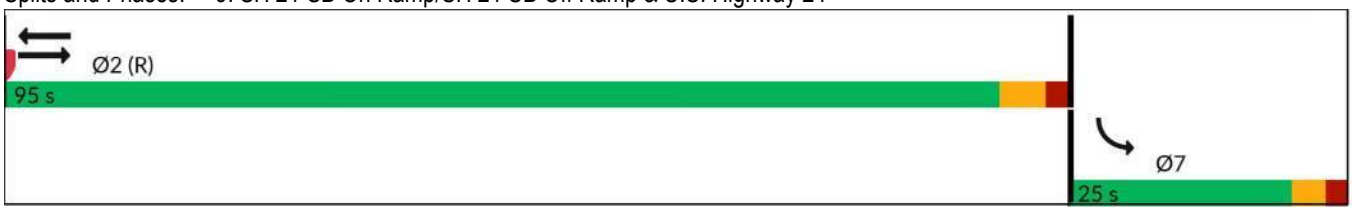
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1891	135	0	1279	656	0	0	0	194	0	439
Future Volume (vph)	0	1891	135	0	1279	656	0	0	0	194	0	439
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			321						274
Lane Group Flow (vph)	0	2055	147	0	1390	713	0	0	0	211	0	477
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		95.0			95.0					25.0		
Total Split (%)		79.2%			79.2%					20.8%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		96.3	120.0		96.3	120.0				12.7		120.0
Actuated g/C Ratio		0.80	1.00		0.80	1.00				0.11		1.00
v/c Ratio		0.50	0.09		0.49	0.45				0.58		0.30
Control Delay (s/veh)		4.6	0.1		4.1	0.8				57.4		0.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		4.6	0.1		4.1	0.8				57.4		0.5
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		4.3			2.9						17.9	
Approach LOS		A			A						B	
Queue Length 50th (ft)		157	0		132	0				82		0
Queue Length 95th (ft)		215	0		165	0				120		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		4081	1583		2840	1583				572		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.50	0.09		0.49	0.45				0.37		0.30

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay (s/veh): 5.6	Intersection LOS: A
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	0	33	5	0	1	63	1086	6	1	374	16
Future Vol, veh/h	8	0	33	5	0	1	63	1086	6	1	374	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	0	36	5	0	1	68	1180	7	1	407	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1145	1741	212	1526	1747	593	424	0	0	1187	0	0
Stage 1	417	417	-	1321	1321	-	-	-	-	-	-	-
Stage 2	727	1324	-	205	426	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*358	121	793	150	120	*790	1132	-	-	766	-	-
Stage 1	*584	589	-	291	322	-	-	-	-	-	-	-
Stage 2	*745	321	-	777	584	-	-	-	-	-	-	-
Platoon blocked, %	0	0		0	0	0		-	-	0	-	-
Mov Cap-1 Maneuver	*324	110	793	130	109	*790	1132	-	-	766	-	-
Mov Cap-2 Maneuver	*324	110	-	130	109	-	-	-	-	-	-	-
Stage 1	*583	588	-	265	293	-	-	-	-	-	-	-
Stage 2	*676	292	-	741	583	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.27	29.94	1.1	0.04
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	195	-	-	619	151	9	-	-
HCM Lane V/C Ratio	0.061	-	-	0.072	0.043	0.001	-	-
HCM Ctrl Dly (s/v)	8.4	0.7	-	11.3	29.9	9.7	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.1	0	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	19	1532	1055	3	865	119	480	645	3	406	1591	61
Future Volume (vph)	19	1532	1055	3	865	119	480	645	3	406	1591	61
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			634			167			167			167
Lane Group Flow (vph)	21	1665	1147	3	940	129	522	701	3	441	1729	66
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	11.0	56.0		10.0	55.0		22.0	52.0		32.0	62.0	
Total Split (%)	7.3%	37.3%		6.7%	36.7%		14.7%	34.7%		21.3%	41.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.9	59.0	150.0	5.0	54.4	150.0	17.0	49.2	150.0	23.8	56.0	150.0
Actuated g/C Ratio	0.04	0.39	1.00	0.03	0.36	1.00	0.11	0.33	1.00	0.16	0.37	1.00
v/c Ratio	0.30	1.20	0.72	0.05	0.73	0.08	1.34	0.60	0.00	0.81	1.31	0.04
Control Delay (s/veh)	81.6	135.5	2.9	72.0	46.5	0.1	218.5	45.4	0.0	73.0	182.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	81.6	135.5	2.9	72.0	46.5	0.1	218.5	45.4	0.0	73.0	182.8	0.0
LOS	F	F	A	E	D	A	F	D	A	E	F	A
Approach Delay (s/veh)		81.4			41.0			119.0			155.7	
Approach LOS		F			D			F			F	
Queue Length 50th (ft)	21	~1025	0	3	446	0	~347	309	0	220	~1158	0
Queue Length 95th (ft)	52	#1294	0	15	534	0	#468	390	0	278	#1298	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000		600	1000		700
Base Capacity (vph)	70	1392	1583	59	1283	1583	389	1160	1583	617	1321	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	1.20	0.72	0.05	0.73	0.08	1.34	0.60	0.00	0.71	1.31	0.04

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.34

Intersection Signal Delay (s/veh): 104.3	Intersection LOS: F
Intersection Capacity Utilization 113.4%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	38	106	423	575	65	0	210	1076	666	6	2560	94
Future Volume (vph)	38	106	423	575	65	0	210	1076	666	6	2560	94
Satd. Flow (prot)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255						724			200
Lane Group Flow (vph)	41	115	460	625	71	0	228	1170	724	7	2783	102
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	10.0		20.0	20.0		16.0	80.0		10.0	74.0	74.0
Total Split (%)	8.3%	8.3%		16.7%	16.7%		13.3%	66.7%		8.3%	61.7%	61.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	5.0	120.0	15.0	17.0		11.0	82.0	120.0	5.0	68.0	68.0
Actuated g/C Ratio	0.04	0.04	1.00	0.13	0.14		0.09	0.68	1.00	0.04	0.57	0.57
v/c Ratio	0.29	1.49	0.29	1.46	0.14		1.41	0.48	0.46	0.10	1.39	0.10
Control Delay (s/veh)	61.1	317.6	0.5	255.8	47.5		255.8	10.2	1.0	58.3	203.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.1	317.6	0.5	255.8	47.5		255.8	10.2	1.0	58.3	203.3	0.2
LOS	E	F	A	F	D		F	B	A	E	F	A
Approach Delay (s/veh)		63.7			234.6			33.5			195.8	
Approach LOS		E			F			C			F	
Queue Length 50th (ft)	16	~125	0	~346	26		~241	194	0	5	~1534	0
Queue Length 95th (ft)	36	#249	0	#464	50		#404	316	0	22	#1662	0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480			925		600	785		785
Base Capacity (vph)	143	77	1583	429	501		162	2418	1583	73	2005	983
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.29	1.49	0.29	1.46	0.14		1.41	0.48	0.46	0.10	1.39	0.10

Intersection Summary

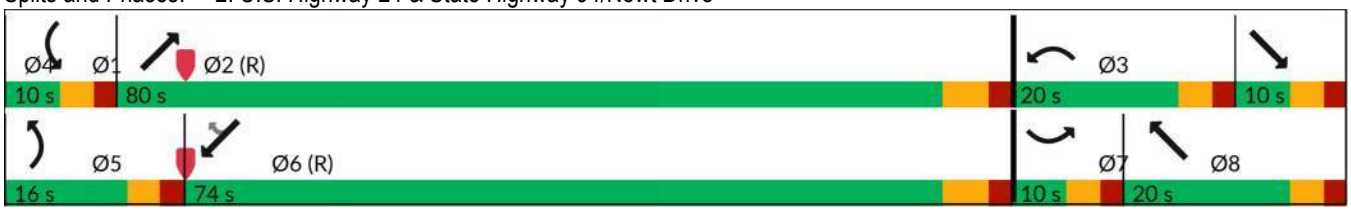
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.49

Intersection Signal Delay (s/veh): 132.8	Intersection LOS: F
Intersection Capacity Utilization 118.8%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	5.6
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	75	302	243	317
Demand Flow Rate, veh/h	76	308	248	323
Vehicles Circulating, veh/h	447	41	421	138
Vehicles Exiting, veh/h	14	628	102	211
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.0	4.8	7.0	5.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	76	308	248	323
Cap Entry Lane, veh/h	875	1323	898	1199
Entry HV Adj Factor	0.983	0.980	0.981	0.981
Flow Entry, veh/h	75	302	243	317
Cap Entry, veh/h	860	1297	881	1175
V/C Ratio	0.087	0.233	0.276	0.269
Control Delay, s/veh	5.0	4.8	7.0	5.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1083	778	290	1369
Demand Flow Rate, veh/h	1105	794	296	1397
Vehicles Circulating, veh/h	1543	368	689	146
Vehicles Exiting, veh/h	0	538	1244	1016
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	11.0	4.7	9.9
Approach LOS	A	B	A	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	LT	TR		L	TR	LT	TR		LT	TR
RT Channelized			Free					Free		
Lane Util	0.469	0.531		0.184	0.816	0.470	0.530		0.470	0.530
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	183	207	715	146	648	102	115	79	657	740
Cap Entry Lane, veh/h	326	383	1938	962	1039	716	791	1938	1180	1254
Entry HV Adj Factor	0.982	0.979	0.980	0.979	0.980	0.980	0.980	0.980	0.980	0.981
Flow Entry, veh/h	180	203	701	143	635	100	113	77	644	726
Cap Entry, veh/h	321	374	1900	942	1018	702	775	1900	1156	1230
V/C Ratio	0.561	0.541	0.369	0.152	0.624	0.142	0.145	0.041	0.557	0.590
Control Delay, s/veh	27.4	23.1	0.0	5.3	12.3	6.7	6.2	0.0	9.7	10.0
LOS	D	C	A	A	B	A	A	A	A	A
95th %tile Queue, veh	3	3	2	1	5	0	1	0	4	4

Intersection	
Int Delay, s/veh	29.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	146	380	13	12	682	43	19	7	16	100	0	14
Future Vol, veh/h	146	380	13	12	682	43	19	7	16	100	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	159	413	14	13	741	47	21	8	17	109	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	788	0	0	427	0	0	1498	1545	413	1502	1512	-
Stage 1	-	-	-	-	-	-	730	730	-	767	767	-
Stage 2	-	-	-	-	-	-	767	814	-	734	745	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	831	-	-	1132	-	-	101	115	639	~ 100	120	0
Stage 1	-	-	-	-	-	-	414	428	-	395	411	0
Stage 2	-	-	-	-	-	-	395	391	-	412	421	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	831	-	-	1132	-	-	81	92	639	~ 73	96	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	81	92	-	~ 73	96	-
Stage 1	-	-	-	-	-	-	335	346	-	390	406	-
Stage 2	-	-	-	-	-	-	390	387	-	317	341	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.8	0.13	49.75	$ 380.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	125	831	-	-	1132	-	-	73	-
HCM Lane V/C Ratio	0.367	0.191	-	-	0.012	-	-	1.496	-
HCM Ctrl Dly (s/v)	49.7	10.3	-	-	8.2	-	-	$ 380.3	0
HCM Lane LOS	E	B	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	1.5	0.7	-	-	0	-	-	9	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	17.5
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	504	1101	1419
Demand Flow Rate, veh/h	0	514	1123	1447
Vehicles Circulating, veh/h	1434	1133	10	997
Vehicles Exiting, veh/h	550	0	1424	650
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	17.5	6.6	26.0
Approach LOS	-	C	A	D

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	LTR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.529	0.471	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	272	242	528	595	464	523	460
Cap Entry Lane, veh/h	476	542	1337	1408	539	608	1938
Entry HV Adj Factor	0.982	0.979	0.980	0.981	0.980	0.981	0.980
Flow Entry, veh/h	267	237	517	583	455	513	451
Cap Entry, veh/h	468	531	1311	1381	529	597	1900
V/C Ratio	0.571	0.446	0.395	0.423	0.860	0.860	0.237
Control Delay, s/veh	20.3	14.4	6.5	6.6	39.8	36.5	0.0
LOS	C	B	A	A	E	E	A
95th %tile Queue, veh	4	2	2	2	9	10	1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	903	156	340	235	77	356
Future Volume (vph)	903	156	340	235	77	356
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		170		255		
Lane Group Flow (vph)	982	170	370	255	84	387
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	6
Permitted Phases				2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	26.0	26.0	24.0	24.0	10.0	34.0
Total Split (%)	43.3%	43.3%	40.0%	40.0%	16.7%	56.7%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	20.4	20.4	18.0	18.0	5.6	28.6
Actuated g/C Ratio	0.34	0.34	0.30	0.30	0.09	0.48
v/c Ratio	0.84	0.26	0.66	0.39	0.51	0.23
Control Delay (s/veh)	26.5	3.9	25.2	4.6	39.9	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.5	3.9	25.2	4.6	39.9	9.9
LOS	C	A	C	A	D	A
Approach Delay (s/veh)	23.2		16.8			15.2
Approach LOS	C		B			B
Queue Length 50th (ft)	165	0	117	0	31	42
Queue Length 95th (ft)	#246	34	200	44	#85	66
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1201	664	558	653	165	1686
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.26	0.66	0.39	0.51	0.23

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 19.7	Intersection LOS: B
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2124	611	0	3685	297	163	0	796	0	0	0
Future Volume (vph)	0	2124	611	0	3685	297	163	0	796	0	0	0
Satd. Flow (prot)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			180		51				96			
Lane Group Flow (vph)	0	2309	664	0	4328	0	177	0	865	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		108.0			108.0		12.0					
Total Split (%)		90.0%			90.0%		10.0%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		102.0	120.0		102.0		7.0		120.0			
Actuated g/C Ratio		0.85	1.00		0.85		0.06		1.00			
v/c Ratio		0.77	0.42		1.01		0.89		0.55			
Control Delay (s/veh)		7.7	0.5		26.3		95.7		1.4			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		7.7	0.5		26.3		95.7		1.4			
LOS		A	A		C		F		A			
Approach Delay (s/veh)		6.1			26.3			17.4				
Approach LOS		A			C			B				
Queue Length 50th (ft)		676	0		~1054		72		0			
Queue Length 95th (ft)		m256	m0		#1371		#140		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		3008	1583		4282		200		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.77	0.42		1.01		0.89		0.55			

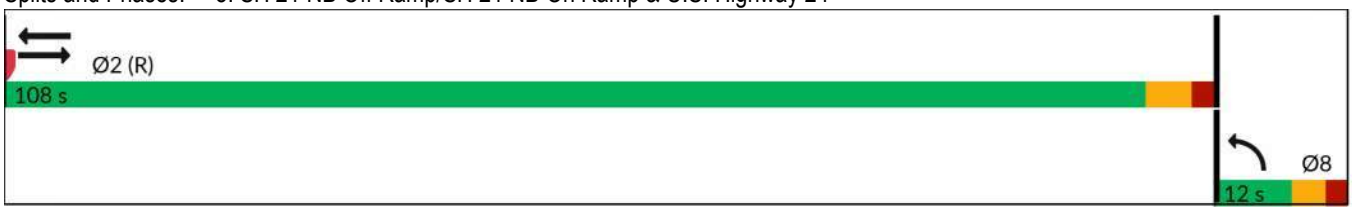
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay (s/veh): 18.0	Intersection LOS: B
Intersection Capacity Utilization 90.8%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2089	236	0	2556	1341	0	0	0	664	0	669
Future Volume (vph)	0	2089	236	0	2556	1341	0	0	0	664	0	669
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			437						234
Lane Group Flow (vph)	0	2271	257	0	2778	1458	0	0	0	722	0	727
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		92.0			92.0					28.0		
Total Split (%)		76.7%			76.7%					23.3%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		86.0	120.0		86.0	120.0				23.0		120.0
Actuated g/C Ratio		0.72	1.00		0.72	1.00				0.19		1.00
v/c Ratio		0.62	0.16		1.10	0.92				1.10		0.46
Control Delay (s/veh)		9.6	0.2		61.1	7.0				110.4		1.0
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		9.6	0.2		61.1	7.0				110.4		1.0
LOS		A	A		E	A				F		A
Approach Delay (s/veh)		8.7			42.5						55.5	
Approach LOS		A			D						E	
Queue Length 50th (ft)		297	0		~1301	39				~331		0
Queue Length 95th (ft)		337	0		m#1282	m34				#455		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3644	1583		2536	1583				657		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.62	0.16		1.10	0.92				1.10		0.46

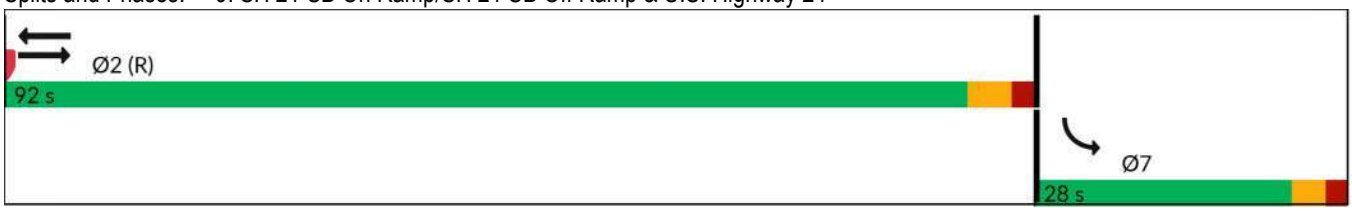
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay (s/veh): 34.4	Intersection LOS: C
Intersection Capacity Utilization 97.9%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	43	0	0	24	0	568	10	0	1263	13
Future Vol, veh/h	0	0	43	0	0	24	0	568	10	0	1263	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	47	0	0	26	0	617	11	0	1373	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	693	-	-	314	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	386	0	0	682	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	386	-	-	682	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.62	10.49	0	0
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	386	682	-	-
HCM Lane V/C Ratio	-	-	0.121	0.038	-	-
HCM Ctrl Dly (s/v)	-	-	15.6	10.5	-	-
HCM Lane LOS	-	-	C	B	-	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	24	0	61	531	0	5	1254
Future Vol, veh/h	24	0	61	531	0	5	1254
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	26	0	66	577	0	5	1363

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	1402	289	1363	0	-	577	0
Stage 1	710	-	-	-	-	-	-
Stage 2	692	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	131	708	194	-	0	992	-
Stage 1	448	-	-	-	0	-	-
Stage 2	458	-	-	-	0	-	-
Platoon blocked, %				-			-
Mov Cap-1 Maneuver	77	708	194	-	-	992	-
Mov Cap-2 Maneuver	77	-	-	-	-	-	-
Stage 1	265	-	-	-	-	-	-
Stage 2	454	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	74.28	3.4	0.11
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	77	14	-
HCM Lane V/C Ratio	-	0.34	0.005	-
HCM Ctrl Dly (s/v)	-	74.3	8.6	0.1
HCM Lane LOS	-	F	A	A
HCM 95th %tile Q(veh)	-	1.3	0	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	4	3	24	9
Future Vol, veh/h	15	5	4	3	24	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	5	4	3	26	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	22	0	31	19
Stage 1	-	-	-	-	19	-
Stage 2	-	-	-	-	12	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1594	-	983	1059
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1594	-	980	1059
Mov Cap-2 Maneuver	-	-	-	-	980	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1008	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.15	8.73
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1001	-	-	1029	-
HCM Lane V/C Ratio	0.036	-	-	0.003	-
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	28	902	631	9	1672	369	1093	1518	0	245	816	31
Future Volume (vph)	28	902	631	9	1672	369	1093	1518	0	245	816	31
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Satd. Flow (RTOR)			670			167						167
Lane Group Flow (vph)	30	980	686	10	1817	401	1188	1650	0	266	887	34
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	62.0		10.0	62.0		43.0	64.0		14.0	35.0	
Total Split (%)	6.7%	41.3%		6.7%	41.3%		28.7%	42.7%		9.3%	23.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	63.0	150.0	5.0	59.0	150.0	38.0	58.0		9.0	29.0	150.0
Actuated g/C Ratio	0.03	0.42	1.00	0.03	0.39	1.00	0.25	0.39		0.06	0.19	1.00
v/c Ratio	0.51	0.66	0.43	0.17	1.31	0.25	1.37	1.21		1.30	1.30	0.02
Control Delay (s/veh)	99.5	38.3	0.9	77.1	180.4	0.4	208.6	145.4		217.1	190.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	99.5	38.3	0.9	77.1	180.4	0.4	208.6	145.4		217.1	190.7	0.0
LOS	F	D	A	E	F	A	F	F		F	F	A
Approach Delay (s/veh)		24.2			147.5			171.8			191.2	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)	30	387	0	10	~1241	0	~822	~1043		~173	~591	0
Queue Length 95th (ft)	#77	522	0	32	#1380	0	m#664	m#820		#270	#728	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000			1000		700
Base Capacity (vph)	59	1486	1583	59	1391	1583	869	1368		205	684	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.51	0.66	0.43	0.17	1.31	0.25	1.37	1.21		1.30	1.30	0.02

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

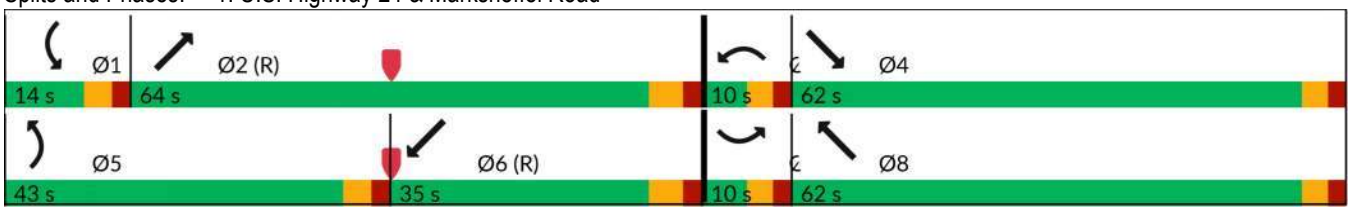
Intersection Signal Delay (s/veh): 136.4	Intersection LOS: F
Intersection Capacity Utilization 113.3%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	35	97	260	551	103	6	291	2581	575	9	1371	47
Future Volume (vph)	35	97	260	551	103	6	291	2581	575	9	1371	47
Satd. Flow (prot)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			270			204			254			160
Lane Group Flow (vph)	38	105	283	599	112	7	316	2805	625	10	1490	51
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	11.0		25.0	26.0		32.0	104.0		10.0	82.0	82.0
Total Split (%)	6.7%	7.3%		16.7%	17.3%		21.3%	69.3%		6.7%	54.7%	54.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	6.0	150.0	20.0	23.0	150.0	27.0	104.0	150.0	5.0	76.0	76.0
Actuated g/C Ratio	0.03	0.04	1.00	0.13	0.15	1.00	0.18	0.69	1.00	0.03	0.51	0.51
v/c Ratio	0.33	1.42	0.18	1.31	0.21	0.00	0.99	1.14	0.39	0.17	0.83	0.06
Control Delay (s/veh)	78.9	298.1	0.2	203.4	57.7	0.0	109.3	93.9	0.7	69.2	29.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.9	298.1	0.2	203.4	57.7	0.0	109.3	93.9	0.7	69.2	29.5	0.0
LOS	E	F	A	F	E	A	F	F	A	E	C	A
Approach Delay (s/veh)		80.7			178.7			79.6			28.8	
Approach LOS		F			F			E			C	
Queue Length 50th (ft)	19	~140	0	~393	52	0	318	~1660	0	10	340	0
Queue Length 95th (ft)	40	#272	0	#517	85	0	#523	#1901	0	m14	m262	m0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480		480	925		600	785		785
Base Capacity (vph)	114	74	1583	457	542	1583	318	2454	1583	59	1793	880
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	1.42	0.18	1.31	0.21	0.00	0.99	1.14	0.39	0.17	0.83	0.06

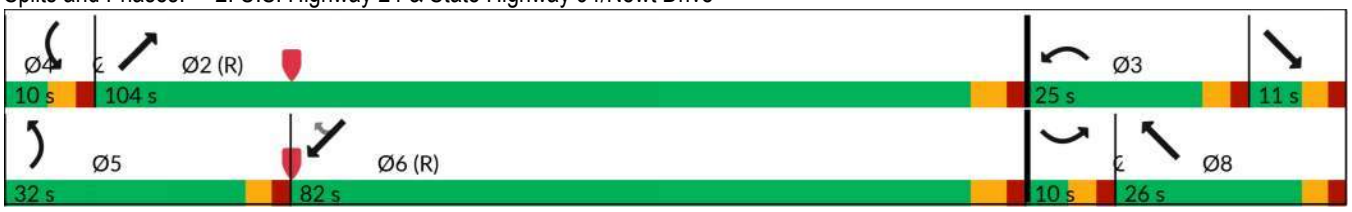
Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.42

Intersection Signal Delay (s/veh): 78.5	Intersection LOS: E
Intersection Capacity Utilization 111.2%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	5.7
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	30	369	97	354
Demand Flow Rate, veh/h	31	377	99	361
Vehicles Circulating, veh/h	523	36	371	212
Vehicles Exiting, veh/h	50	434	183	201
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.9	5.3	4.8	6.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	31	377	99	361
Cap Entry Lane, veh/h	809	1330	945	1112
Entry HV Adj Factor	0.983	0.980	0.983	0.981
Flow Entry, veh/h	30	370	97	354
Cap Entry, veh/h	796	1304	929	1090
V/C Ratio	0.038	0.283	0.105	0.325
Control Delay, s/veh	4.9	5.3	4.8	6.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection	
Intersection Delay, s/veh	158.1
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	617	561	1948	406
Demand Flow Rate, veh/h	629	572	1987	414
Vehicles Circulating, veh/h	421	1932	1005	7
Vehicles Exiting, veh/h	0	579	18	2497
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.1	512.1	135.5	5.3
Approach LOS	A	F	F	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	L	TR		L	TR	LT	TR		L	TR
RT Channelized			Free					Free		
Lane Util	0.708	0.292		0.012	0.988	0.470	0.530		0.973	0.027
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	426	176	27	7	565	708	798	481	403	11
Cap Entry Lane, veh/h	916	993	1938	228	275	536	604	1938	1341	1412
Entry HV Adj Factor	0.981	0.980	0.980	1.000	0.981	0.980	0.981	0.980	0.980	0.980
Flow Entry, veh/h	418	173	26	7	554	694	783	472	395	11
Cap Entry, veh/h	899	973	1900	228	269	525	593	1900	1315	1384
V/C Ratio	0.465	0.177	0.014	0.031	2.056	1.322	1.320	0.248	0.300	0.008
Control Delay, s/veh	9.8	5.4	0.0	16.4	518.3	180.9	177.0	0.0	5.4	2.7
LOS	A	A	A	C	F	F	F	A	A	A
95th %tile Queue, veh	3	1	0	0	41	30	33	1	1	0

Intersection	
Int Delay, s/veh	38.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	465	447	16	3	419	34	16	12	18	36	0	83
Future Vol, veh/h	465	447	16	3	419	34	16	12	18	36	0	83
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	505	486	17	3	455	37	17	13	20	39	0	90

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	492	0	0	503	0	0	1959	1996	486	1965	1976	-
Stage 1	-	-	-	-	-	-	1497	1497	-	462	462	-
Stage 2	-	-	-	-	-	-	462	499	-	1503	1514	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1071	-	-	1061	-	-	48	60	581	47	62	0
Stage 1	-	-	-	-	-	-	153	186	-	580	565	0
Stage 2	-	-	-	-	-	-	580	544	-	152	182	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1071	-	-	1061	-	-	25	32	581	~ 18	33	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	32	-	~ 18	33	-
Stage 1	-	-	-	-	-	-	81	98	-	578	563	-
Stage 2	-	-	-	-	-	-	578	542	-	67	96	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.68	0.06	$ 324.57	$ 1016.69
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	44	1071	-	-	1061	-	-	18	-
HCM Lane V/C Ratio	1.137	0.472	-	-	0.003	-	-	2.227	-
HCM Ctrl Dly (s/v)	$ 324.6	11.3	-	-	8.4	-	-	$ 1016.7	0
HCM Lane LOS	F	B	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	4.7	2.6	-	-	0	-	-	5.4	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	25.0
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	160	2453	697
Demand Flow Rate, veh/h	0	163	2502	711
Vehicles Circulating, veh/h	443	2515	13	734
Vehicles Exiting, veh/h	713	0	430	1944
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	82.3	26.9	5.1
Approach LOS	-	F	D	A

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	TR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.129	0.871	0.470	0.530	0.469	0.531	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	21	142	1176	1326	198	224	289
Cap Entry Lane, veh/h	134	167	1334	1405	687	761	1938
Entry HV Adj Factor	1.000	0.978	0.980	0.980	0.982	0.979	0.980
Flow Entry, veh/h	21	139	1153	1300	194	219	283
Cap Entry, veh/h	134	164	1308	1377	675	745	1900
V/C Ratio	0.157	0.848	0.882	0.944	0.288	0.294	0.149
Control Delay, s/veh	32.7	89.8	23.0	30.4	8.9	8.3	0.0
LOS	D	F	C	D	A	A	A
95th %tile Queue, veh	1	6	13	18	1	1	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	316	91	388	1333	239	301
Future Volume (vph)	316	91	388	1333	239	301
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		99		81		
Lane Group Flow (vph)	343	99	422	1449	260	327
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA
Protected Phases	8	8	2	8	1	6
Permitted Phases				2		
Detector Phase	8	8	2	8	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	9.0	10.0	9.0	9.0	10.0
Total Split (s)	24.0	24.0	75.0	24.0	21.0	96.0
Total Split (%)	20.0%	20.0%	62.5%	20.0%	17.5%	80.0%
Yellow Time (s)	3.0	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max	None	Max	C-Max
Act Effct Green (s)	19.0	19.0	69.0	94.0	16.0	90.0
Actuated g/C Ratio	0.16	0.16	0.58	0.78	0.13	0.75
v/c Ratio	0.63	0.30	0.39	1.15	1.10	0.12
Control Delay (s/veh)	53.1	11.1	15.4	94.4	136.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.1	11.1	15.4	94.4	136.6	4.3
LOS	D	B	B	F	F	A
Approach Delay (s/veh)	43.7		76.5			62.9
Approach LOS	D		E			E
Queue Length 50th (ft)	131	0	173	~1334	~233	32
Queue Length 95th (ft)	182	50	245	#1607	#404	44
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	543	333	1071	1257	236	2654
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.30	0.39	1.15	1.10	0.12

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

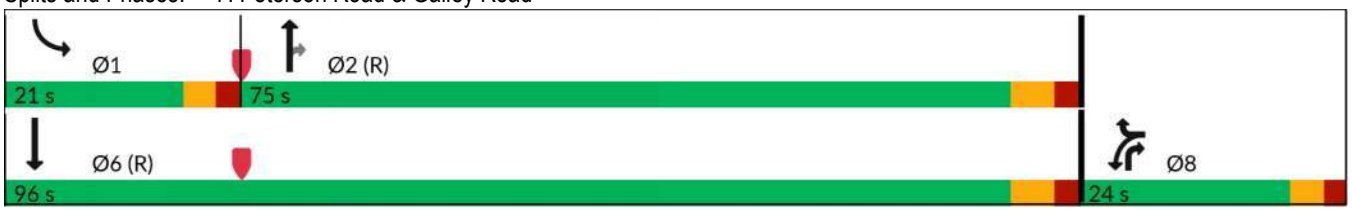
Maximum v/c Ratio: 1.15

Intersection Signal Delay (s/veh): 68.8	Intersection LOS: E
Intersection Capacity Utilization 104.1%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2437	654	0	2686	346	212	0	1168	0	0	0
Future Volume (vph)	0	2437	654	0	2686	346	212	0	1168	0	0	0
Satd. Flow (prot)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			168		78				112			
Lane Group Flow (vph)	0	2649	711	0	3296	0	230	0	1270	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		105.0			105.0		15.0					
Total Split (%)		87.5%			87.5%		12.5%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		99.0	120.0		99.0		10.0		120.0			
Actuated g/C Ratio		0.83	1.00		0.83		0.08		1.00			
v/c Ratio		0.91	0.45		0.80		0.80		0.80			
Control Delay (s/veh)		8.0	0.6		7.1		75.3		4.4			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		8.0	0.6		7.1		75.3		4.4			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		6.5			7.1			15.3				
Approach LOS		A			A			B				
Queue Length 50th (ft)		160	0		364		93		0			
Queue Length 95th (ft)		167	0		412		#157		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2919	1583		4137		286		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.91	0.45		0.80		0.80		0.80			

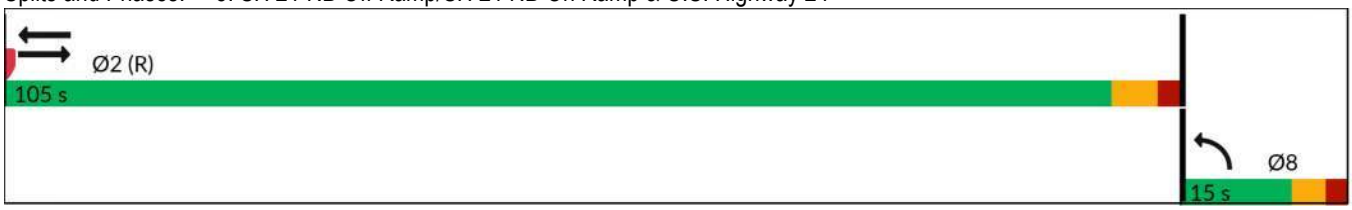
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 8.3	Intersection LOS: A
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



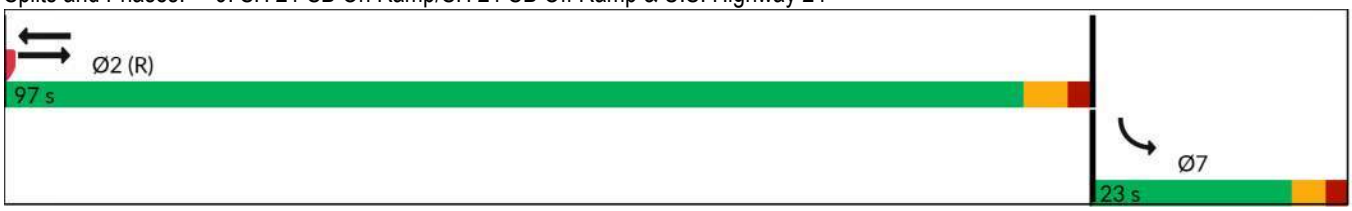
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2826	201	0	1901	981	0	0	0	288	0	652
Future Volume (vph)	0	2826	201	0	1901	981	0	0	0	288	0	652
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			430						203
Lane Group Flow (vph)	0	3072	218	0	2066	1066	0	0	0	313	0	709
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		97.0			97.0					23.0		
Total Split (%)		80.8%			80.8%					19.2%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		93.3	120.0		93.3	120.0				15.7		120.0
Actuated g/C Ratio		0.78	1.00		0.78	1.00				0.13		1.00
v/c Ratio		0.78	0.14		0.75	0.67				0.70		0.45
Control Delay (s/veh)		9.6	0.2		6.0	1.5				58.5		0.9
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		9.6	0.2		6.0	1.5				58.5		0.9
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		9.0			4.5						18.6	
Approach LOS		A			A						B	
Queue Length 50th (ft)		424	0		224	0				122		0
Queue Length 95th (ft)		521	0		242	0				169		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3955	1583		2752	1583				514		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		39	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.78	0.14		0.75	0.67				0.61		0.45

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 8.4	Intersection LOS: A
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	61	0	0	18	0	1708	34	0	580	24
Future Vol, veh/h	0	0	61	0	0	18	0	1708	34	0	580	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	66	0	0	20	0	1857	37	0	630	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	328	-	-	947	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	667	0	0	262	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	667	-	-	262	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.99	19.84	0	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	667	262	-	-
HCM Lane V/C Ratio	-	-	0.099	0.075	-	-
HCM Ctrl Dly (s/v)	-	-	11	19.8	-	-
HCM Lane LOS	-	-	B	C	-	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	16	0	101	1625	0	13	604
Future Vol, veh/h	16	0	101	1625	0	13	604
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	17	0	110	1766	0	14	657

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2342	883	657	0	0	1766	0
Stage 1	1986	-	-	-	-	-	-
Stage 2	357	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	30	289	551	-	-	349	-
Stage 1	92	-	-	-	-	-	-
Stage 2	679	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	18	289	551	-	-	349	-
Mov Cap-2 Maneuver	18	-	-	-	-	-	-
Stage 1	56	-	-	-	-	-	-
Stage 2	646	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	$ 508.64	0.77	1.06
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	18	76	-
HCM Lane V/C Ratio	-	-	0.988	0.04	-
HCM Ctrl Dly (s/v)	-	-	$ 508.6	15.7	0.7
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	2.5	0.1	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	13	8	10	16	6
Future Vol, veh/h	10	13	8	10	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	14	9	11	17	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	25	0	46	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1589	-	964	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	994	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1589	-	959	1061
Mov Cap-2 Maneuver	-	-	-	-	959	-
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	989	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.23	8.75
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	800	-
HCM Lane V/C Ratio	0.024	-	-	0.005	-
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	19	1532	1057	3	865	119	486	653	3	406	1594	61
Future Volume (vph)	19	1532	1057	3	865	119	486	653	3	406	1594	61
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			634			167			167			167
Lane Group Flow (vph)	21	1665	1149	3	940	129	528	710	3	441	1733	66
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	11.0	56.0		10.0	55.0		22.0	52.0		32.0	62.0	
Total Split (%)	7.3%	37.3%		6.7%	36.7%		14.7%	34.7%		21.3%	41.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.9	59.0	150.0	5.0	54.4	150.0	17.0	49.2	150.0	23.8	56.0	150.0
Actuated g/C Ratio	0.04	0.39	1.00	0.03	0.36	1.00	0.11	0.33	1.00	0.16	0.37	1.00
v/c Ratio	0.30	1.20	0.73	0.05	0.73	0.08	1.36	0.61	0.00	0.81	1.31	0.04
Control Delay (s/veh)	81.6	135.5	2.9	72.0	46.5	0.1	224.5	45.6	0.0	73.0	184.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	81.6	135.5	2.9	72.0	46.5	0.1	224.5	45.6	0.0	73.0	184.0	0.0
LOS	F	F	A	E	D	A	F	D	A	E	F	A
Approach Delay (s/veh)		81.4			41.0			121.6			156.8	
Approach LOS		F			D			F			F	
Queue Length 50th (ft)	21	~1025	0	3	446	0	~354	314	0	220	~1163	0
Queue Length 95th (ft)	52	#1294	0	15	534	0	#475	396	0	278	#1302	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000		600	1000		700
Base Capacity (vph)	70	1392	1583	59	1283	1583	389	1160	1583	617	1321	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	1.20	0.73	0.05	0.73	0.08	1.36	0.61	0.00	0.71	1.31	0.04

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.36

Intersection Signal Delay (s/veh): 105.1	Intersection LOS: F
Intersection Capacity Utilization 113.6%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	47	111	423	575	67	0	210	1076	666	6	2560	97
Future Volume (vph)	47	111	423	575	67	0	210	1076	666	6	2560	97
Satd. Flow (prot)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255						724			200
Lane Group Flow (vph)	51	121	460	625	73	0	228	1170	724	7	2783	105
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	10.0		20.0	20.0		16.0	80.0		10.0	74.0	74.0
Total Split (%)	8.3%	8.3%		16.7%	16.7%		13.3%	66.7%		8.3%	61.7%	61.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	5.0	120.0	15.0	17.0		11.0	82.0	120.0	5.0	68.0	68.0
Actuated g/C Ratio	0.04	0.04	1.00	0.13	0.14		0.09	0.68	1.00	0.04	0.57	0.57
v/c Ratio	0.36	1.57	0.29	1.46	0.15		1.41	0.48	0.46	0.10	1.39	0.11
Control Delay (s/veh)	63.1	347.6	0.5	255.8	47.5		255.8	10.2	1.0	58.3	203.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.1	347.6	0.5	255.8	47.5		255.8	10.2	1.0	58.3	203.3	0.2
LOS	E	F	A	F	D		F	B	A	E	F	A
Approach Delay (s/veh)		72.0			234.0			33.5			195.6	
Approach LOS		E			F			C			F	
Queue Length 50th (ft)	20	~135	0	~346	27		~241	194	0	5	~1534	0
Queue Length 95th (ft)	42	#261	0	#464	51		#404	316	0	22	#1662	0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480			925		600	785		785
Base Capacity (vph)	143	77	1583	429	501		162	2418	1583	73	2005	983
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.36	1.57	0.29	1.46	0.15		1.41	0.48	0.46	0.10	1.39	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

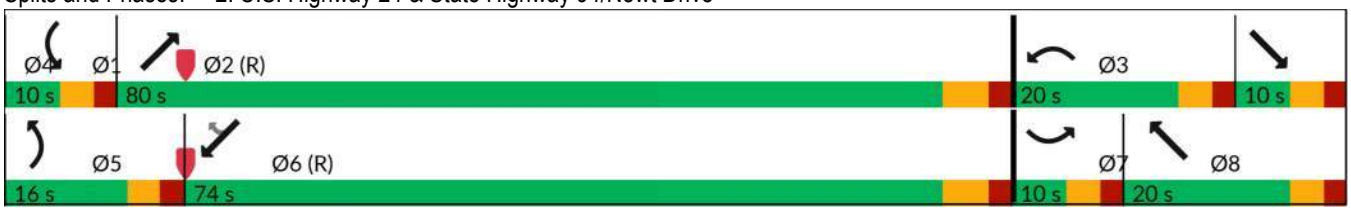
Maximum v/c Ratio: 1.57

Intersection Signal Delay (s/veh): 133.3	Intersection LOS: F
Intersection Capacity Utilization 118.8%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	75	308	262	318
Demand Flow Rate, veh/h	76	314	267	324
Vehicles Circulating, veh/h	454	45	421	144
Vehicles Exiting, veh/h	14	643	109	215
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.1	4.8	7.3	5.6
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	76	314	267	324
Cap Entry Lane, veh/h	868	1318	898	1191
Entry HV Adj Factor	0.983	0.981	0.982	0.981
Flow Entry, veh/h	75	308	262	318
Cap Entry, veh/h	854	1293	882	1168
V/C Ratio	0.088	0.238	0.297	0.272
Control Delay, s/veh	5.1	4.8	7.3	5.6
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1093	784	290	1369
Demand Flow Rate, veh/h	1115	800	296	1397
Vehicles Circulating, veh/h	1543	378	699	146
Vehicles Exiting, veh/h	0	538	1244	1032
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.3	11.4	4.8	9.9
Approach LOS	A	B	A	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	LT	TR		L	TR	LT	TR		LT	TR
RT Channelized			Free					Free		
Lane Util	0.470	0.530		0.183	0.818	0.470	0.530		0.470	0.530
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	188	212	715	146	654	102	115	79	657	740
Cap Entry Lane, veh/h	326	383	1938	953	1030	710	784	1938	1180	1254
Entry HV Adj Factor	0.981	0.981	0.980	0.979	0.980	0.980	0.980	0.980	0.980	0.981
Flow Entry, veh/h	184	208	701	143	641	100	113	77	644	726
Cap Entry, veh/h	320	375	1900	934	1009	696	769	1900	1156	1230
V/C Ratio	0.576	0.554	0.369	0.153	0.635	0.144	0.147	0.041	0.557	0.590
Control Delay, s/veh	28.3	23.7	0.0	5.3	12.7	6.8	6.2	0.0	9.7	10.0
LOS	D	C	A	A	B	A	A	A	A	A
95th %tile Queue, veh	3	3	2	1	5	1	1	0	4	4

Intersection	
Int Delay, s/veh	29.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	146	380	13	12	682	43	19	7	16	100	0	20
Future Vol, veh/h	146	380	13	12	682	43	19	7	16	100	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	159	413	14	13	741	47	21	8	17	109	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	788	0	0	427	0	0	1498	1545	413	1502	1512	-
Stage 1	-	-	-	-	-	-	730	730	-	767	767	-
Stage 2	-	-	-	-	-	-	767	814	-	734	745	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	831	-	-	1132	-	-	101	115	639	~ 100	120	0
Stage 1	-	-	-	-	-	-	414	428	-	395	411	0
Stage 2	-	-	-	-	-	-	395	391	-	412	421	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	831	-	-	1132	-	-	81	92	639	~ 73	96	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	81	92	-	~ 73	96	-
Stage 1	-	-	-	-	-	-	335	346	-	390	406	-
Stage 2	-	-	-	-	-	-	390	387	-	317	341	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.8	0.13	49.75	$ 380.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	125	831	-	-	1132	-	-	73	-
HCM Lane V/C Ratio	0.367	0.191	-	-	0.012	-	-	1.496	-
HCM Ctrl Dly (s/v)	49.7	10.3	-	-	8.2	-	-	$ 380.3	0
HCM Lane LOS	E	B	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	1.5	0.7	-	-	0	-	-	9	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	504	1117	1468
Demand Flow Rate, veh/h	0	514	1140	1497
Vehicles Circulating, veh/h	1434	1150	10	997
Vehicles Exiting, veh/h	550	0	1424	667
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	18.0	6.6	25.1
Approach LOS	-	C	A	D

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	LTR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.529	0.471	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	272	242	536	604	464	523	510
Cap Entry Lane, veh/h	469	534	1337	1408	539	608	1938
Entry HV Adj Factor	0.982	0.979	0.980	0.981	0.980	0.981	0.980
Flow Entry, veh/h	267	237	525	592	455	513	500
Cap Entry, veh/h	460	523	1311	1381	529	597	1900
V/C Ratio	0.580	0.453	0.401	0.429	0.860	0.860	0.263
Control Delay, s/veh	21.0	14.7	6.6	6.7	39.8	36.5	0.0
LOS	C	B	A	A	E	E	A
95th %tile Queue, veh	4	2	2	2	9	10	1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	904	156	363	239	77	363
Future Volume (vph)	904	156	363	239	77	363
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		170		260		
Lane Group Flow (vph)	983	170	395	260	84	395
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	6
Permitted Phases				2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	26.0	26.0	24.0	24.0	10.0	34.0
Total Split (%)	43.3%	43.3%	40.0%	40.0%	16.7%	56.7%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	20.4	20.4	18.0	18.0	5.6	28.6
Actuated g/C Ratio	0.34	0.34	0.30	0.30	0.09	0.48
v/c Ratio	0.84	0.26	0.71	0.40	0.51	0.23
Control Delay (s/veh)	26.6	3.9	27.3	4.6	39.9	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.6	3.9	27.3	4.6	39.9	9.9
LOS	C	A	C	A	D	A
Approach Delay (s/veh)	23.2		18.3			15.2
Approach LOS	C		B			B
Queue Length 50th (ft)	165	0	128	0	31	43
Queue Length 95th (ft)	#262	34	#240	45	#85	67
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1201	664	558	656	165	1686
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.26	0.71	0.40	0.51	0.23

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 20.1	Intersection LOS: C
Intersection Capacity Utilization 62.5%	ICU Level of Service B
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2133	611	0	3730	297	163	0	802	0	0	0
Future Volume (vph)	0	2133	611	0	3730	297	163	0	802	0	0	0
Satd. Flow (prot)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			180		50				95			
Lane Group Flow (vph)	0	2318	664	0	4377	0	177	0	872	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		108.0			108.0		12.0					
Total Split (%)		90.0%			90.0%		10.0%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		102.0	120.0		102.0		7.0		120.0			
Actuated g/C Ratio		0.85	1.00		0.85		0.06		1.00			
v/c Ratio		0.77	0.42		1.02		0.89		0.55			
Control Delay (s/veh)		7.8	0.5		29.9		95.7		1.4			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		7.8	0.5		29.9		95.7		1.4			
LOS		A	A		C		F		A			
Approach Delay (s/veh)		6.1			29.9			17.3				
Approach LOS		A			C			B				
Queue Length 50th (ft)		681	0		~1339		72		0			
Queue Length 95th (ft)		m256	m0		#1400		#140		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		3008	1583		4282		200		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.77	0.42		1.02		0.89		0.55			

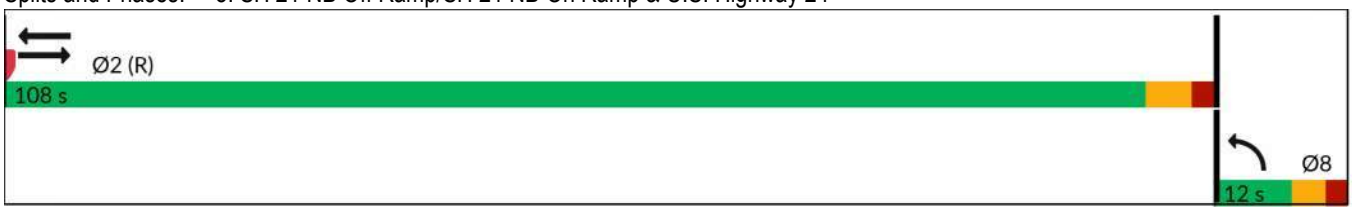
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay (s/veh): 19.9	Intersection LOS: B
Intersection Capacity Utilization 91.7%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2094	236	0	2583	1365	0	0	0	664	0	669
Future Volume (vph)	0	2094	236	0	2583	1365	0	0	0	664	0	669
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			440						234
Lane Group Flow (vph)	0	2276	257	0	2808	1484	0	0	0	722	0	727
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		92.0			92.0					28.0		
Total Split (%)		76.7%			76.7%					23.3%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		86.0	120.0		86.0	120.0				23.0		120.0
Actuated g/C Ratio		0.72	1.00		0.72	1.00				0.19		1.00
v/c Ratio		0.62	0.16		1.11	0.94				1.10		0.46
Control Delay (s/veh)		9.7	0.2		65.5	6.2				110.4		1.0
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		9.7	0.2		65.5	6.2				110.4		1.0
LOS		A	A		E	A				F		A
Approach Delay (s/veh)		8.7			45.0						55.5	
Approach LOS		A			D						E	
Queue Length 50th (ft)		298	0		~1326	61				~331		0
Queue Length 95th (ft)		338	0		m#1284	m42				#455		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3644	1583		2536	1583				657		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.62	0.16		1.11	0.94				1.10		0.46

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

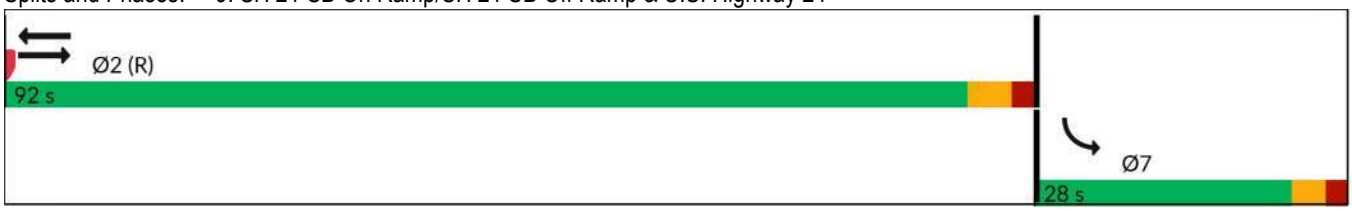
Intersection Signal Delay (s/veh): 35.7	Intersection LOS: D
Intersection Capacity Utilization 98.7%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	43	0	0	24	0	583	10	0	1308	13
Future Vol, veh/h	0	0	43	0	0	24	0	583	10	0	1308	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	47	0	0	26	0	634	11	0	1422	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	718	-	-	322	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*718	0	0	673	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0					-	-		-	-
Mov Cap-1 Maneuver	-	-	*718	-	-	673	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.36	10.56	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	718	673	-	-
HCM Lane V/C Ratio	-	-	0.065	0.039	-	-
HCM Ctrl Dly (s/v)	-	-	10.4	10.6	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.4

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	69	27	61	531	15	13	1254
Future Vol, veh/h	69	27	61	531	15	13	1254
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	150	0	-	-	150	150	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	75	29	66	577	16	14	1363

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	1420	289	1363	0	0	593	0
Stage 1	710	-	-	-	-	-	-
Stage 2	710	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	127	708	194	-	-	979	-
Stage 1	448	-	-	-	-	-	-
Stage 2	448	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	~ 74	708	194	-	-	979	-
Mov Cap-2 Maneuver	~ 74	-	-	-	-	-	-
Stage 1	264	-	-	-	-	-	-
Stage 2	442	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	150.51	3.32	0.09
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	74	708	979	-
HCM Lane V/C Ratio	-	-	1.013	0.041	0.014	-
HCM Ctrl Dly (s/v)	-	-	205.4	10.3	8.7	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	5.4	0.1	0	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	28	10	3	96	27
Future Vol, veh/h	15	28	10	3	96	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	30	11	3	104	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	41	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1561	-	970	1063
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1561	-	963	1063
Mov Cap-2 Maneuver	-	-	-	-	963	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	991	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.63	9.24
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	983	-	-	1561	-
HCM Lane V/C Ratio	0.136	-	-	0.007	-
HCM Ctrl Dly (s/v)	9.2	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	28	902	636	9	1672	369	1096	1521	0	245	821	31
Future Volume (vph)	28	902	636	9	1672	369	1096	1521	0	245	821	31
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Satd. Flow (RTOR)			675			167						167
Lane Group Flow (vph)	30	980	691	10	1817	401	1191	1653	0	266	892	34
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	62.0		10.0	62.0		43.0	64.0		14.0	35.0	
Total Split (%)	6.7%	41.3%		6.7%	41.3%		28.7%	42.7%		9.3%	23.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	63.0	150.0	5.0	59.0	150.0	38.0	58.0		9.0	29.0	150.0
Actuated g/C Ratio	0.03	0.42	1.00	0.03	0.39	1.00	0.25	0.39		0.06	0.19	1.00
v/c Ratio	0.51	0.66	0.44	0.17	1.31	0.25	1.37	1.21		1.30	1.30	0.02
Control Delay (s/veh)	99.5	38.3	0.9	77.1	180.4	0.4	209.8	146.1		217.1	193.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	99.5	38.3	0.9	77.1	180.4	0.4	209.8	146.1		217.1	193.6	0.0
LOS	F	D	A	E	F	A	F	F		F	F	A
Approach Delay (s/veh)		24.2			147.5			172.8			193.3	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)	30	387	0	10	~1241	0	~825	~1046		~173	~596	0
Queue Length 95th (ft)	#77	522	0	32	#1380	0	m#668	m#824		#270	#735	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000			1000		700
Base Capacity (vph)	59	1486	1583	59	1391	1583	869	1368		205	684	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.51	0.66	0.44	0.17	1.31	0.25	1.37	1.21		1.30	1.30	0.02

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

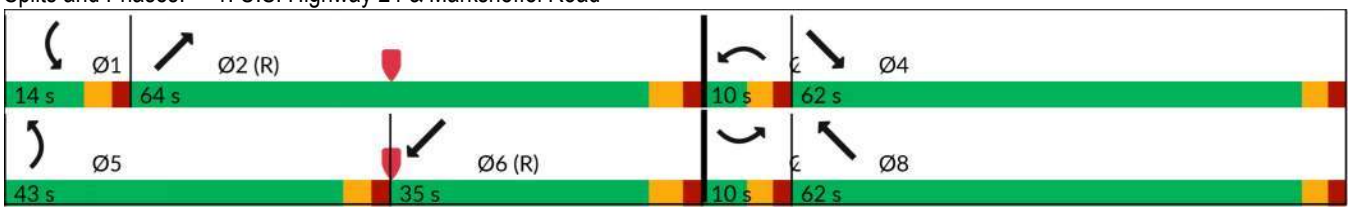
Intersection Signal Delay (s/veh): 137.1	Intersection LOS: F
Intersection Capacity Utilization 113.5%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	41	100	260	551	108	6	291	2581	575	9	1371	57
Future Volume (vph)	41	100	260	551	108	6	291	2581	575	9	1371	57
Satd. Flow (prot)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			270			204			254			160
Lane Group Flow (vph)	45	109	283	599	117	7	316	2805	625	10	1490	62
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	11.0		25.0	26.0		32.0	104.0		10.0	82.0	82.0
Total Split (%)	6.7%	7.3%		16.7%	17.3%		21.3%	69.3%		6.7%	54.7%	54.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	6.0	150.0	20.0	23.0	150.0	27.0	104.0	150.0	5.0	76.0	76.0
Actuated g/C Ratio	0.03	0.04	1.00	0.13	0.15	1.00	0.18	0.69	1.00	0.03	0.51	0.51
v/c Ratio	0.39	1.47	0.18	1.31	0.22	0.00	0.99	1.14	0.39	0.17	0.83	0.07
Control Delay (s/veh)	81.3	317.8	0.2	203.4	57.9	0.0	109.3	93.9	0.7	69.2	29.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	81.3	317.8	0.2	203.4	57.9	0.0	109.3	93.9	0.7	69.2	29.4	0.1
LOS	F	F	A	F	E	A	F	F	A	E	C	A
Approach Delay (s/veh)		87.8			177.9			79.6			28.5	
Approach LOS		F			F			E			C	
Queue Length 50th (ft)	23	~148	0	~393	55	0	318	~1660	0	10	339	0
Queue Length 95th (ft)	46	#282	0	#517	88	0	#523	#1901	0	m14	m260	m0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480		480	925		600	785		785
Base Capacity (vph)	114	74	1583	457	542	1583	318	2454	1583	59	1793	880
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	1.47	0.18	1.31	0.22	0.00	0.99	1.14	0.39	0.17	0.83	0.07

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.47

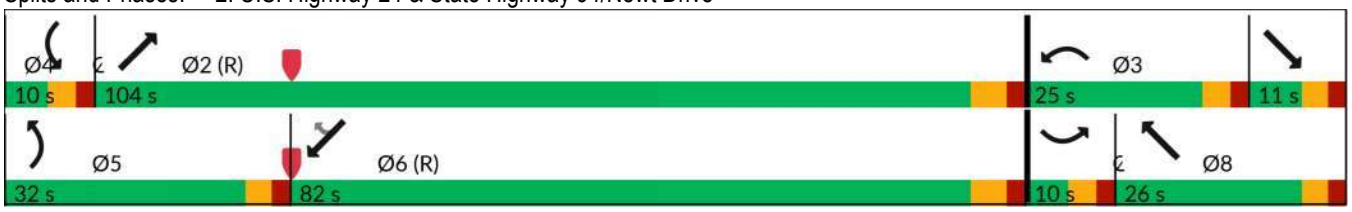
Intersection Signal Delay (s/veh): 78.8	Intersection LOS: E
Intersection Capacity Utilization 111.2%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	5.9
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	30	385	120	360
Demand Flow Rate, veh/h	31	393	123	367
Vehicles Circulating, veh/h	545	38	371	228
Vehicles Exiting, veh/h	50	456	205	203
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.0	5.4	5.1	6.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	31	393	123	367
Cap Entry Lane, veh/h	791	1327	945	1094
Entry HV Adj Factor	0.983	0.981	0.978	0.981
Flow Entry, veh/h	30	386	120	360
Cap Entry, veh/h	778	1302	925	1073
V/C Ratio	0.039	0.296	0.130	0.336
Control Delay, s/veh	5.0	5.4	5.1	6.7
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection	
Intersection Delay, s/veh	175.8
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	648	582	1948	406
Demand Flow Rate, veh/h	661	594	1987	414
Vehicles Circulating, veh/h	421	1964	1037	7
Vehicles Exiting, veh/h	0	579	18	2551
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	573.9	148.0	5.3
Approach LOS	A	F	F	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	L	TR		L	TR	LT	TR		L	TR
RT Channelized			Free					Free		
Lane Util	0.722	0.278		0.012	0.988	0.470	0.530		0.973	0.027
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	458	176	27	7	587	708	798	481	403	11
Cap Entry Lane, veh/h	916	993	1938	222	267	520	588	1938	1341	1412
Entry HV Adj Factor	0.980	0.980	0.980	1.000	0.980	0.980	0.981	0.980	0.980	0.980
Flow Entry, veh/h	449	173	26	7	575	694	783	472	395	11
Cap Entry, veh/h	898	973	1900	222	262	510	577	1900	1315	1384
V/C Ratio	0.500	0.177	0.014	0.032	2.195	1.362	1.357	0.248	0.300	0.008
Control Delay, s/veh	10.4	5.4	0.0	16.9	580.7	198.0	192.8	0.0	5.4	2.7
LOS	B	A	A	C	F	F	F	A	A	A
95th %tile Queue, veh	3	1	0	0	44	31	34	1	1	0

Intersection	
Int Delay, s/veh	38.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	465	447	16	3	419	34	16	12	18	36	0	102
Future Vol, veh/h	465	447	16	3	419	34	16	12	18	36	0	102
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	505	486	17	3	455	37	17	13	20	39	0	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	492	0	0	503	0	0	1959	1996	486	1965	1976	-
Stage 1	-	-	-	-	-	-	1497	1497	-	462	462	-
Stage 2	-	-	-	-	-	-	462	499	-	1503	1514	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1071	-	-	1061	-	-	48	60	581	47	62	0
Stage 1	-	-	-	-	-	-	153	186	-	580	565	0
Stage 2	-	-	-	-	-	-	580	544	-	152	182	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1071	-	-	1061	-	-	25	32	581	~ 18	33	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	32	-	~ 18	33	-
Stage 1	-	-	-	-	-	-	81	98	-	578	563	-
Stage 2	-	-	-	-	-	-	578	542	-	67	96	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.68	0.06	$ 324.57	$ 1016.69
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	44	1071	-	-	1061	-	-	18	-
HCM Lane V/C Ratio	1.137	0.472	-	-	0.003	-	-	2.227	-
HCM Ctrl Dly (s/v)	$ 324.6	11.3	-	-	8.4	-	-	$ 1016.7	0
HCM Lane LOS	F	B	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	4.7	2.6	-	-	0	-	-	5.4	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	27.4
Intersection LOS	D

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	160	2504	728
Demand Flow Rate, veh/h	0	163	2554	742
Vehicles Circulating, veh/h	443	2567	13	734
Vehicles Exiting, veh/h	713	0	430	1996
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	92.3	29.8	4.9
Approach LOS	-	F	D	A

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	TR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.129	0.871	0.470	0.530	0.469	0.531	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	21	142	1200	1354	198	224	320
Cap Entry Lane, veh/h	127	160	1334	1405	687	761	1938
Entry HV Adj Factor	1.000	0.978	0.981	0.980	0.982	0.979	0.980
Flow Entry, veh/h	21	139	1177	1327	194	219	314
Cap Entry, veh/h	127	157	1308	1377	675	745	1900
V/C Ratio	0.165	0.887	0.900	0.964	0.288	0.294	0.165
Control Delay, s/veh	34.6	101.0	25.0	34.0	8.9	8.3	0.0
LOS	D	F	C	D	A	A	A
95th %tile Queue, veh	1	6	14	19	1	1	1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	321	91	402	1336	239	325
Future Volume (vph)	321	91	402	1336	239	325
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		99		81		
Lane Group Flow (vph)	349	99	437	1452	260	353
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA
Protected Phases	8	8	2	8	1	6
Permitted Phases				2		
Detector Phase	8	8	2	8	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	9.0	10.0	9.0	9.0	10.0
Total Split (s)	24.0	24.0	75.0	24.0	21.0	96.0
Total Split (%)	20.0%	20.0%	62.5%	20.0%	17.5%	80.0%
Yellow Time (s)	3.0	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max	None	Max	C-Max
Act Effct Green (s)	19.0	19.0	69.0	94.0	16.0	90.0
Actuated g/C Ratio	0.16	0.16	0.58	0.78	0.13	0.75
v/c Ratio	0.64	0.30	0.41	1.16	1.10	0.13
Control Delay (s/veh)	53.4	11.1	15.6	95.4	136.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.4	11.1	15.6	95.4	136.6	4.3
LOS	D	B	B	F	F	A
Approach Delay (s/veh)	44.1		76.9			60.4
Approach LOS	D		E			E
Queue Length 50th (ft)	134	0	181	~1339	~233	34
Queue Length 95th (ft)	186	50	256	#1612	#404	48
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	543	333	1071	1257	236	2654
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.30	0.41	1.16	1.10	0.13

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated

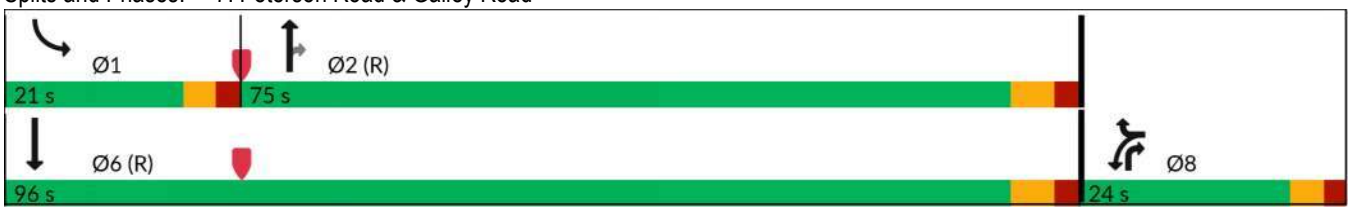
Maximum v/c Ratio: 1.16

Intersection Signal Delay (s/veh): 68.5	Intersection LOS: E
Intersection Capacity Utilization 104.3%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2481	654	0	2715	346	212	0	1187	0	0	0
Future Volume (vph)	0	2481	654	0	2715	346	212	0	1187	0	0	0
Satd. Flow (prot)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			165		76				111			
Lane Group Flow (vph)	0	2697	711	0	3327	0	230	0	1290	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		105.0			105.0		15.0					
Total Split (%)		87.5%			87.5%		12.5%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		99.0	120.0		99.0		10.0		120.0			
Actuated g/C Ratio		0.83	1.00		0.83		0.08		1.00			
v/c Ratio		0.92	0.45		0.80		0.80		0.81			
Control Delay (s/veh)		9.1	0.6		7.3		75.3		4.7			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		9.1	0.6		7.3		75.3		4.7			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		7.3			7.3			15.4				
Approach LOS		A			A			B				
Queue Length 50th (ft)		803	0		374		93		0			
Queue Length 95th (ft)		169	0		424		#157		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2919	1583		4137		286		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.92	0.45		0.80		0.80		0.81			

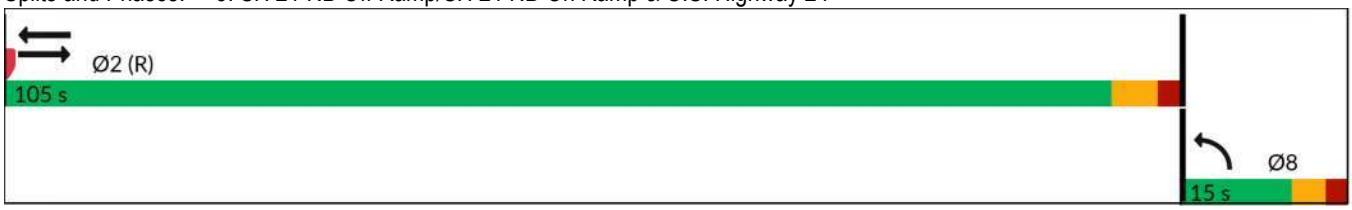
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay (s/veh): 8.8	Intersection LOS: A
Intersection Capacity Utilization 83.0%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



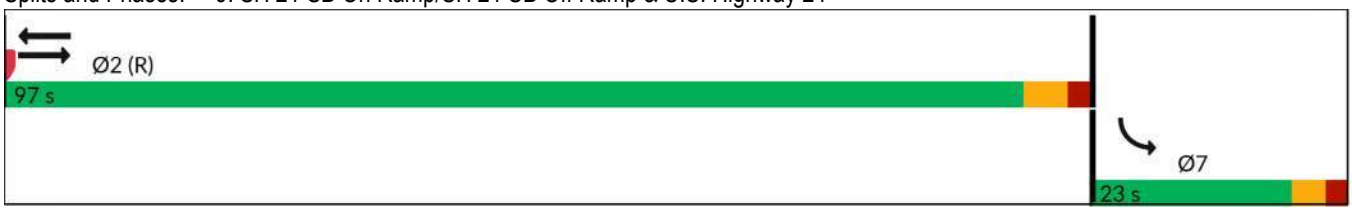
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2854	201	0	1929	986	0	0	0	288	0	652
Future Volume (vph)	0	2854	201	0	1929	986	0	0	0	288	0	652
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			425						202
Lane Group Flow (vph)	0	3102	218	0	2097	1072	0	0	0	313	0	709
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		97.0			97.0					23.0		
Total Split (%)		80.8%			80.8%					19.2%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		93.3	120.0		93.3	120.0				15.7		120.0
Actuated g/C Ratio		0.78	1.00		0.78	1.00				0.13		1.00
v/c Ratio		0.78	0.14		0.76	0.68				0.70		0.45
Control Delay (s/veh)		9.8	0.2		6.1	1.5				58.5		0.9
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		9.8	0.2		6.1	1.5				58.5		0.9
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		9.2			4.5						18.6	
Approach LOS		A			A						B	
Queue Length 50th (ft)		434	0		227	0				122		0
Queue Length 95th (ft)		533	0		245	0				169		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3955	1583		2752	1583				514		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		60	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.80	0.14		0.76	0.68				0.61		0.45

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 8.5	Intersection LOS: A
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	61	0	0	18	0	1708	34	0	609	24
Future Vol, veh/h	0	0	61	0	0	18	0	1708	34	0	609	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	66	0	0	20	0	1857	37	0	662	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	344	-	-	947	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*919	0	0	262	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0					-	-		-	-
Mov Cap-1 Maneuver	-	-	*919	-	-	262	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.22	19.84	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	919	262	-	-
HCM Lane V/C Ratio	-	-	0.072	0.075	-	-
HCM Ctrl Dly (s/v)	-	-	9.2	19.8	-	-
HCM Lane LOS	-	-	A	C	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	30.9

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	45	17	101	1625	47	42	604
Future Vol, veh/h	45	17	101	1625	47	42	604
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	150	0	-	-	150	150	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	49	18	110	1766	51	46	657

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	2405	883	657	0	0	1817	0
Stage 1	1986	-	-	-	-	-	-
Stage 2	420	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	~ 28	289	551	-	-	334	-
Stage 1	92	-	-	-	-	-	-
Stage 2	631	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	~ 14	289	551	-	-	334	-
Mov Cap-2 Maneuver	~ 14	-	-	-	-	-	-
Stage 1	55	-	-	-	-	-	-
Stage 2	545	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	$ 1203.68	0.75	1.14
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	14	289	334	-
HCM Lane V/C Ratio	-	-	3.46	0.064	0.137	-
HCM Ctrl Dly (s/v)	-	-	$ 1651.5	18.3	17.5	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	7	0.2	0.5	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	89	28	10	62	17
Future Vol, veh/h	10	89	28	10	62	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	97	30	11	67	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	83	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	72	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	919	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	951	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	900	1070
Mov Cap-2 Maneuver	-	-	-	-	900	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.51	9.25
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	932	-	-	1483	-
HCM Lane V/C Ratio	0.092	-	-	0.021	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	10	1073	740	2	606	83	338	455	2	284	1115	43
Future Volume (vph)	10	1073	740	2	606	83	338	455	2	284	1115	43
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			648			164			164			164
Lane Group Flow (vph)	11	1166	804	2	659	90	367	495	2	309	1212	47
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	44.0		10.0	44.0		18.0	45.0		21.0	48.0	
Total Split (%)	8.3%	36.7%		8.3%	36.7%		15.0%	37.5%		17.5%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	47.0	120.0	5.0	47.0	120.0	13.0	40.2	120.0	14.8	42.0	120.0
Actuated g/C Ratio	0.04	0.39	1.00	0.04	0.39	1.00	0.11	0.34	1.00	0.12	0.35	1.00
v/c Ratio	0.15	0.84	0.51	0.03	0.48	0.06	0.99	0.42	0.00	0.73	0.98	0.03
Control Delay (s/veh)	60.2	40.3	1.2	56.0	29.3	0.1	91.6	38.8	0.0	61.2	59.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.2	40.3	1.2	56.0	29.3	0.1	91.6	38.8	0.0	61.2	59.9	0.0
LOS	E	D	A	E	C	A	F	D	A	E	E	A
Approach Delay (s/veh)		24.5			25.9			61.1			58.4	
Approach LOS		C			C			E			E	
Queue Length 50th (ft)	9	420	0	2	195	0	152	137	0	121	493	0
Queue Length 95th (ft)	29	#647	0	11	288	0	#255	270	m0	170	#649	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000		600	1000		700
Base Capacity (vph)	73	1386	1583	73	1386	1583	371	1185	1583	457	1238	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.84	0.51	0.03	0.48	0.06	0.99	0.42	0.00	0.68	0.98	0.03

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay (s/veh): 41.1	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	75	297	403	46	0	147	753	466	4	1793	67
Future Volume (vph)	30	75	297	403	46	0	147	753	466	4	1793	67
Satd. Flow (prot)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255						507			200
Lane Group Flow (vph)	33	82	323	438	50	0	160	818	507	4	1949	73
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	10.0		20.0	20.0		16.0	80.0		10.0	74.0	74.0
Total Split (%)	8.3%	8.3%		16.7%	16.7%		13.3%	66.7%		8.3%	61.7%	61.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	5.0	120.0	15.0	19.0		11.0	82.0	120.0	5.0	68.0	68.0
Actuated g/C Ratio	0.04	0.04	1.00	0.13	0.16		0.09	0.68	1.00	0.04	0.57	0.57
v/c Ratio	0.23	1.06	0.20	1.02	0.09		0.99	0.34	0.32	0.05	0.97	0.07
Control Delay (s/veh)	59.7	175.9	0.3	100.6	46.2		122.4	8.7	0.5	52.3	37.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.7	175.9	0.3	100.6	46.2		122.4	8.7	0.5	52.3	37.5	0.4
LOS	E	F	A	F	D		F	A	A	D	D	A
Approach Delay (s/veh)		37.6			95.0			18.1			36.2	
Approach LOS		D			F			B			D	
Queue Length 50th (ft)	13	~71	0	~188	18		128	118	0	4	483	0
Queue Length 95th (ft)	31	#179	0	#294	38		#272	198	0	m4	m#557	m1
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480			925		600	785		785
Base Capacity (vph)	143	77	1583	429	560		162	2418	1583	73	2005	983
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.23	1.06	0.20	1.02	0.09		0.99	0.34	0.32	0.05	0.97	0.07

Intersection Summary

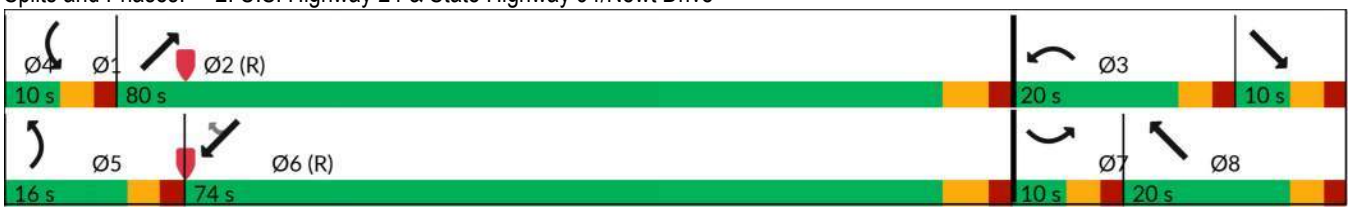
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay (s/veh): 36.8	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	4.5
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	53	208	173	223
Demand Flow Rate, veh/h	54	212	176	227
Vehicles Circulating, veh/h	311	29	297	94
Vehicles Exiting, veh/h	10	444	68	147
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	4.0	5.2	4.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	54	212	176	227
Cap Entry Lane, veh/h	1005	1340	1019	1254
Entry HV Adj Factor	0.983	0.982	0.980	0.982
Flow Entry, veh/h	53	208	173	223
Cap Entry, veh/h	988	1316	999	1231
V/C Ratio	0.054	0.158	0.173	0.181
Control Delay, s/veh	4.1	4.0	5.2	4.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection	
Intersection Delay, s/veh	5.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	760	547	279	958
Demand Flow Rate, veh/h	775	558	285	977
Vehicles Circulating, veh/h	1080	337	483	103
Vehicles Exiting, veh/h	0	376	871	792
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	7.5	4.3	6.7
Approach LOS	A	A	A	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	LT	TR		L	TR	LT	TR		LT	TR
RT Channelized			Free					Free		
Lane Util	0.471	0.529		0.185	0.815	0.470	0.530		0.470	0.530
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	129	145	501	103	455	108	122	55	459	518
Cap Entry Lane, veh/h	500	567	1938	990	1066	866	942	1938	1228	1301
Entry HV Adj Factor	0.979	0.982	0.980	0.981	0.980	0.981	0.980	0.980	0.981	0.980
Flow Entry, veh/h	126	142	491	101	446	106	120	54	450	508
Cap Entry, veh/h	489	557	1900	971	1045	849	923	1900	1204	1275
V/C Ratio	0.258	0.256	0.258	0.104	0.427	0.125	0.130	0.028	0.374	0.398
Control Delay, s/veh	11.2	9.9	0.0	4.7	8.1	5.5	5.1	0.0	6.6	6.7
LOS	B	A	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	0	2	0	0	0	2	2

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	266	9	8	478	30	14	5	11	70	0	10
Future Vol, veh/h	102	266	9	8	478	30	14	5	11	70	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	111	289	10	9	520	33	15	5	12	76	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	552	0	0	299	0	0	1048	1080	289	1051	1058	-
Stage 1	-	-	-	-	-	-	511	511	-	537	537	-
Stage 2	-	-	-	-	-	-	537	570	-	514	521	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1018	-	-	1262	-	-	206	218	750	205	225	0
Stage 1	-	-	-	-	-	-	545	537	-	528	523	0
Stage 2	-	-	-	-	-	-	528	506	-	544	532	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1018	-	-	1262	-	-	182	193	750	174	199	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	193	-	174	199	-
Stage 1	-	-	-	-	-	-	486	479	-	524	519	-
Stage 2	-	-	-	-	-	-	524	502	-	471	474	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.43	0.12	21.15	40.85
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	255	1018	-	-	1262	-	-	174	-
HCM Lane V/C Ratio	0.128	0.109	-	-	0.007	-	-	0.437	-
HCM Ctrl Dly (s/v)	21.1	9	-	-	7.9	-	-	40.9	0
HCM Lane LOS	C	A	-	-	A	-	-	E	A
HCM 95th %tile Q(veh)	0.4	0.4	-	-	0	-	-	2	-

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	354	773	1002
Demand Flow Rate, veh/h	0	361	789	1021
Vehicles Circulating, veh/h	1004	796	7	698
Vehicles Exiting, veh/h	385	0	997	459
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	8.7	5.2	7.7
Approach LOS	-	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	LTR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.529	0.471	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	191	170	371	418	325	366	330
Cap Entry Lane, veh/h	649	722	1341	1412	710	785	1938
Entry HV Adj Factor	0.982	0.979	0.979	0.980	0.980	0.981	0.980
Flow Entry, veh/h	188	166	363	410	318	359	324
Cap Entry, veh/h	638	706	1314	1384	696	770	1900
V/C Ratio	0.294	0.236	0.277	0.296	0.458	0.467	0.171
Control Delay, s/veh	9.5	7.8	5.2	5.2	11.7	11.0	0.0
LOS	A	A	A	A	B	B	A
95th %tile Queue, veh	1	1	1	1	2	3	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	633	109	242	165	54	251
Future Volume (vph)	633	109	242	165	54	251
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		118		179		
Lane Group Flow (vph)	688	118	263	179	59	273
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	6
Permitted Phases				2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	25.0	25.0	24.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	40.0%	18.3%	58.3%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	17.3	17.3	24.8	24.8	6.3	31.7
Actuated g/C Ratio	0.29	0.29	0.41	0.41	0.11	0.53
v/c Ratio	0.69	0.22	0.34	0.24	0.32	0.15
Control Delay (s/veh)	22.7	4.6	16.5	4.1	30.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.7	4.6	16.5	4.1	30.0	8.1
LOS	C	A	B	A	C	A
Approach Delay (s/veh)	20.1		11.5			12.0
Approach LOS	C		B			B
Queue Length 50th (ft)	113	0	76	0	20	25
Queue Length 95th (ft)	155	29	139	38	52	46
Internal Link Dist (ft)	378		469			138
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1144	606	769	759	187	1868
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.19	0.34	0.24	0.32	0.15

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 16.0	Intersection LOS: B
Intersection Capacity Utilization 47.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Peterson Road & Galley Road



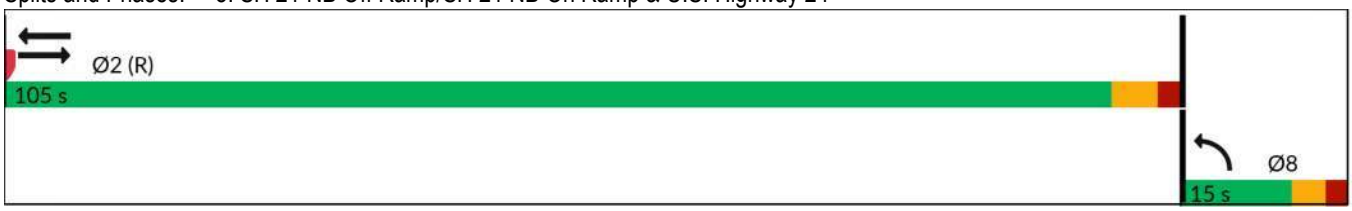
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1489	428	0	2564	208	114	0	560	0	0	0
Future Volume (vph)	0	1489	428	0	2564	208	114	0	560	0	0	0
Satd. Flow (prot)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			180		44				173			
Lane Group Flow (vph)	0	1618	465	0	3013	0	124	0	609	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		105.0			105.0		15.0					
Total Split (%)		87.5%			87.5%		12.5%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		99.9	120.0		99.9		9.1		120.0			
Actuated g/C Ratio		0.83	1.00		0.83		0.08		1.00			
v/c Ratio		0.55	0.29		0.72		0.48		0.38			
Control Delay (s/veh)		4.6	0.4		5.4		59.3		0.7			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		4.6	0.4		5.4		59.3		0.7			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		3.6			5.4			10.6				
Approach LOS		A			A			B				
Queue Length 50th (ft)		173	0		279		48		0			
Queue Length 95th (ft)		191	0		323		80		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2947	1583		4195		286		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.55	0.29		0.72		0.43		0.38			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 5.4	Intersection LOS: A
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



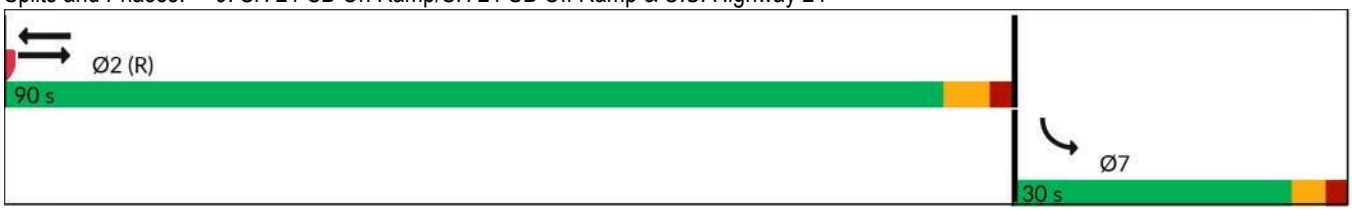
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1464	165	0	1794	946	0	0	0	465	0	468
Future Volume (vph)	0	1464	165	0	1794	946	0	0	0	465	0	468
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			439						269
Lane Group Flow (vph)	0	1591	179	0	1950	1028	0	0	0	505	0	509
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		90.0			90.0					30.0		
Total Split (%)		75.0%			75.0%					25.0%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		86.9	120.0		86.9	120.0				22.1		120.0
Actuated g/C Ratio		0.72	1.00		0.72	1.00				0.18		1.00
v/c Ratio		0.43	0.11		0.76	0.65				0.80		0.32
Control Delay (s/veh)		7.3	0.1		9.4	2.1				56.7		0.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		7.3	0.1		9.4	2.1				56.7		0.5
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		6.6			6.9						28.5	
Approach LOS		A			A						C	
Queue Length 50th (ft)		165	0		240	8				196		0
Queue Length 95th (ft)		208	0		277	24				252		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3681	1583		2562	1583				715		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.43	0.11		0.76	0.65				0.71		0.32

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 10.6	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	0	0	21	0	397	9	0	891	9
Future Vol, veh/h	0	0	30	0	0	21	0	397	9	0	891	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	33	0	0	23	0	432	10	0	968	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	489	-	-	221	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*861	0	0	783	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0					-	-		-	-
Mov Cap-1 Maneuver	-	-	*861	-	-	783	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.35	9.73	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	861	783	-	-
HCM Lane V/C Ratio	-	-	0.038	0.029	-	-
HCM Ctrl Dly (s/v)	-	-	9.3	9.7	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	24	0	42	376	0	5	879
Future Vol, veh/h	24	0	42	376	0	5	879
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	26	0	46	409	0	5	955

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	989	204	955	0	0	409	0
Stage 1	500	-	-	-	-	-	-
Stage 2	489	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	244	802	355	-	-	1147	-
Stage 1	575	-	-	-	-	-	-
Stage 2	582	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	207	802	355	-	-	1147	-
Mov Cap-2 Maneuver	207	-	-	-	-	-	-
Stage 1	491	-	-	-	-	-	-
Stage 2	579	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	24.87	3.45	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	207	20	-
HCM Lane V/C Ratio	-	-	0.126	0.005	-
HCM Ctrl Dly (s/v)	2	-	24.9	8.2	0.1
HCM Lane LOS	A	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	4	3	24	9
Future Vol, veh/h	15	5	4	3	24	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	5	4	3	26	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	22	0	31	19
Stage 1	-	-	-	-	19	-
Stage 2	-	-	-	-	12	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1594	-	983	1059
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1594	-	980	1059
Mov Cap-2 Maneuver	-	-	-	-	980	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1008	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.15	8.73
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1001	-	-	1029	-
HCM Lane V/C Ratio	0.036	-	-	0.003	-
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	632	442	6	1170	258	766	1063	0	172	572	22
Future Volume (vph)	20	632	442	6	1170	258	766	1063	0	172	572	22
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Satd. Flow (RTOR)			480			209						209
Lane Group Flow (vph)	22	687	480	7	1272	280	833	1155	0	187	622	24
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	47.0		10.0	47.0		34.0	50.0		13.0	29.0	
Total Split (%)	8.3%	39.2%		8.3%	39.2%		28.3%	41.7%		10.8%	24.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	50.0	120.0	5.0	46.0	120.0	29.0	44.0		8.0	23.0	120.0
Actuated g/C Ratio	0.04	0.42	1.00	0.04	0.38	1.00	0.24	0.37		0.07	0.19	1.00
v/c Ratio	0.30	0.47	0.30	0.10	0.94	0.18	1.00	0.89		0.82	0.92	0.02
Control Delay (s/veh)	66.7	27.2	0.5	58.3	50.2	0.2	72.6	57.9		82.6	67.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	66.7	27.2	0.5	58.3	50.2	0.2	72.6	57.9		82.6	67.3	0.0
LOS	E	C	A	E	D	A	E	E		F	E	A
Approach Delay (s/veh)		17.2			41.3			64.0			68.8	
Approach LOS		B			D			E			E	
Queue Length 50th (ft)	17	196	0	5	~562	0	~365	460		76	254	0
Queue Length 95th (ft)	46	290	0	22	#702	0	#496	#595		#138	#364	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000			1000		700
Base Capacity (vph)	73	1474	1583	73	1356	1583	829	1297		228	678	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.30	0.47	0.30	0.10	0.94	0.18	1.00	0.89		0.82	0.92	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

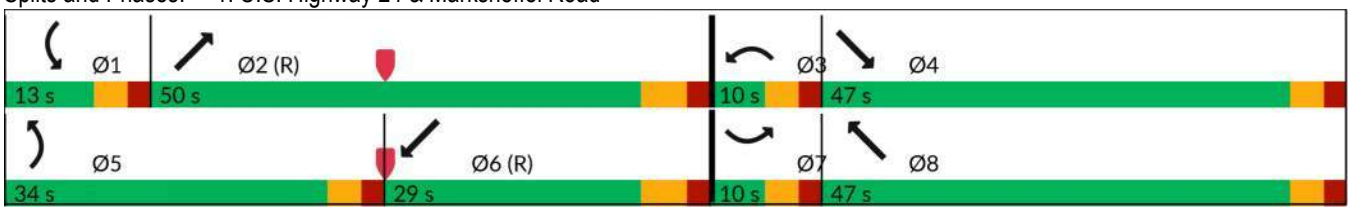
Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 48.4	Intersection LOS: D
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	25	69	182	386	73	4	204	1807	403	6	960	34
Future Volume (vph)	25	69	182	386	73	4	204	1807	403	6	960	34
Satd. Flow (prot)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255			255			318			200
Lane Group Flow (vph)	27	75	198	420	79	4	222	1964	438	7	1043	37
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	12.0		22.0	24.0		28.0	76.0		10.0	58.0	58.0
Total Split (%)	8.3%	10.0%		18.3%	20.0%		23.3%	63.3%		8.3%	48.3%	48.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	7.0	120.0	16.7	20.3	120.0	19.4	80.7	120.0	5.1	58.3	58.3
Actuated g/C Ratio	0.04	0.06	1.00	0.14	0.17	1.00	0.16	0.67	1.00	0.04	0.49	0.49
v/c Ratio	0.19	0.70	0.13	0.88	0.13	0.00	0.78	0.83	0.28	0.09	0.61	0.04
Control Delay (s/veh)	58.8	87.6	0.2	70.7	43.2	0.0	66.6	20.0	0.4	48.8	37.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.8	87.6	0.2	70.7	43.2	0.0	66.6	20.0	0.4	48.8	37.1	0.6
LOS	E	F	A	E	D	A	E	B	A	D	D	A
Approach Delay (s/veh)		27.3			65.8			20.7			35.9	
Approach LOS		C			E			C			D	
Queue Length 50th (ft)	10	59	0	169	28	0	168	556	0	6	308	0
Queue Length 95th (ft)	27	#137	0	#254	52	0	251	#943	0	m11	m372	m0
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480		480	925		600	785		785
Base Capacity (vph)	143	108	1583	486	619	1583	339	2378	1583	75	1719	871
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.69	0.13	0.86	0.13	0.00	0.65	0.83	0.28	0.09	0.61	0.04

Intersection Summary

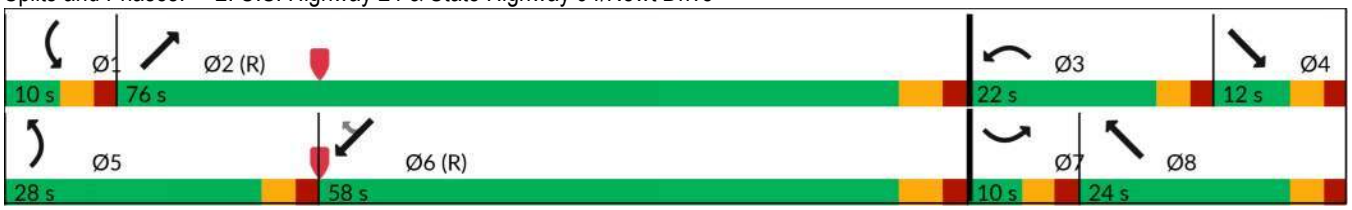
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 29.8	Intersection LOS: C
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	4.6
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	253	71	248
Demand Flow Rate, veh/h	21	258	72	253
Vehicles Circulating, veh/h	362	25	259	143
Vehicles Exiting, veh/h	34	306	124	140
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	4.3	4.1	5.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	21	258	72	253
Cap Entry Lane, veh/h	954	1345	1060	1193
Entry HV Adj Factor	0.983	0.981	0.980	0.982
Flow Entry, veh/h	21	253	71	248
Cap Entry, veh/h	938	1319	1038	1171
V/C Ratio	0.022	0.192	0.068	0.212
Control Delay, s/veh	4.0	4.3	4.1	5.0
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	437	395	1364	284
Demand Flow Rate, veh/h	445	403	1392	290
Vehicles Circulating, veh/h	294	1359	709	4
Vehicles Exiting, veh/h	0	405	12	1758
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	50.3	15.0	4.5
Approach LOS	A	F	C	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	L	TR		L	TR	LT	TR		L	TR
RT Channelized			Free					Free		
Lane Util	0.712	0.288		0.010	0.990	0.470	0.530		0.972	0.028
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	304	123	18	4	399	496	559	337	282	8
Cap Entry Lane, veh/h	1030	1106	1938	387	447	703	777	1938	1345	1415
Entry HV Adj Factor	0.980	0.980	0.980	1.000	0.980	0.980	0.981	0.980	0.979	0.980
Flow Entry, veh/h	298	121	18	4	391	486	548	330	276	8
Cap Entry, veh/h	1010	1084	1900	387	438	689	762	1900	1316	1388
V/C Ratio	0.295	0.111	0.009	0.010	0.892	0.705	0.719	0.174	0.210	0.006
Control Delay, s/veh	6.5	4.3	0.0	9.5	50.7	20.3	19.4	0.0	4.5	2.6
LOS	A	A	A	A	F	C	C	A	A	A
95th %tile Queue, veh	1	0	0	0	10	6	6	1	1	0

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	326	313	11	2	293	24	11	8	12	25	0	61
Future Vol, veh/h	326	313	11	2	293	24	11	8	12	25	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	354	340	12	2	318	26	12	9	13	27	0	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	345	0	0	352	0	0	1372	1398	340	1376	1384	-
Stage 1	-	-	-	-	-	-	1049	1049	-	323	323	-
Stage 2	-	-	-	-	-	-	323	349	-	1053	1061	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1214	-	-	1207	-	-	123	141	702	122	144	0
Stage 1	-	-	-	-	-	-	275	304	-	689	650	0
Stage 2	-	-	-	-	-	-	689	634	-	273	301	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1214	-	-	1207	-	-	87	99	702	80	101	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	99	-	80	101	-
Stage 1	-	-	-	-	-	-	195	216	-	688	649	-
Stage 2	-	-	-	-	-	-	688	632	-	182	213	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.6	0.05	39.14	72.13
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	139	1214	-	-	1207	-	-	80	-
HCM Lane V/C Ratio	0.243	0.292	-	-	0.002	-	-	0.342	-
HCM Ctrl Dly (s/v)	39.1	9.2	-	-	8	-	-	72.1	0
HCM Lane LOS	E	A	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	0.9	1.2	-	-	0	-	-	1.3	-

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	112	1725	492
Demand Flow Rate, veh/h	0	114	1760	502
Vehicles Circulating, veh/h	310	1769	9	514
Vehicles Exiting, veh/h	499	0	301	1369
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	17.9	10.5	3.4
Approach LOS	-	C	B	A

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	TR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.132	0.868	0.470	0.530	0.471	0.529	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	15	99	827	933	139	156	207
Cap Entry Lane, veh/h	265	316	1339	1409	841	917	1938
Entry HV Adj Factor	1.000	0.979	0.980	0.980	0.978	0.983	0.980
Flow Entry, veh/h	15	97	811	914	136	153	203
Cap Entry, veh/h	265	309	1313	1381	823	901	1900
V/C Ratio	0.057	0.314	0.618	0.662	0.165	0.170	0.107
Control Delay, s/veh	14.7	18.4	10.2	10.9	6.1	5.7	0.0
LOS	B	C	B	B	A	A	A
95th %tile Queue, veh	0	1	5	5	1	1	0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	220	63	266	932	168	203
Future Volume (vph)	220	63	266	932	168	203
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		68		842		
Lane Group Flow (vph)	239	68	289	1013	183	221
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	6
Permitted Phases				2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	23.0	23.0	26.0	26.0	11.0	37.0
Total Split (%)	38.3%	38.3%	43.3%	43.3%	18.3%	61.7%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	9.5	9.5	20.0	20.0	14.5	39.5
Actuated g/C Ratio	0.16	0.16	0.33	0.33	0.24	0.66
v/c Ratio	0.44	0.22	0.47	0.93	0.43	0.09
Control Delay (s/veh)	25.0	8.3	18.8	21.1	23.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.0	8.3	18.8	21.1	23.8	4.2
LOS	C	A	B	C	C	A
Approach Delay (s/veh)	21.3		20.6			13.1
Approach LOS	C		C			B
Queue Length 50th (ft)	41	0	82	46	57	12
Queue Length 95th (ft)	67	28	145	#347	116	26
Internal Link Dist (ft)	378		443			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1029	522	621	1089	428	2330
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.13	0.47	0.93	0.43	0.09

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 19.2	Intersection LOS: B
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



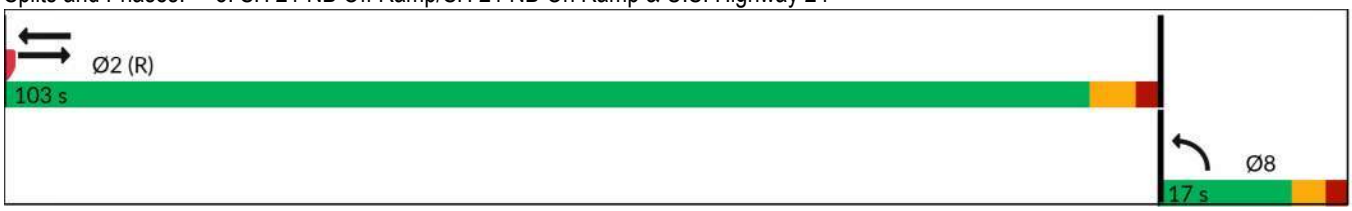
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1722	458	0	1870	242	149	0	827	0	0	0
Future Volume (vph)	0	1722	458	0	1870	242	149	0	827	0	0	0
Satd. Flow (prot)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			167		71				163			
Lane Group Flow (vph)	0	1872	498	0	2296	0	162	0	899	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		103.0			103.0		17.0					
Total Split (%)		85.8%			85.8%		14.2%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		98.5	120.0		98.5		10.5		120.0			
Actuated g/C Ratio		0.82	1.00		0.82		0.09		1.00			
v/c Ratio		0.64	0.31		0.56		0.54		0.57			
Control Delay (s/veh)		3.6	0.5		4.1		59.0		1.5			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		3.6	0.5		4.1		59.0		1.5			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		2.9			4.1			10.3				
Approach LOS		A			A			B				
Queue Length 50th (ft)		113	0		168		63		0			
Queue Length 95th (ft)		122	0		203		99		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2904	1583		4115		343		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.64	0.31		0.56		0.47		0.57			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 4.8	Intersection LOS: A
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



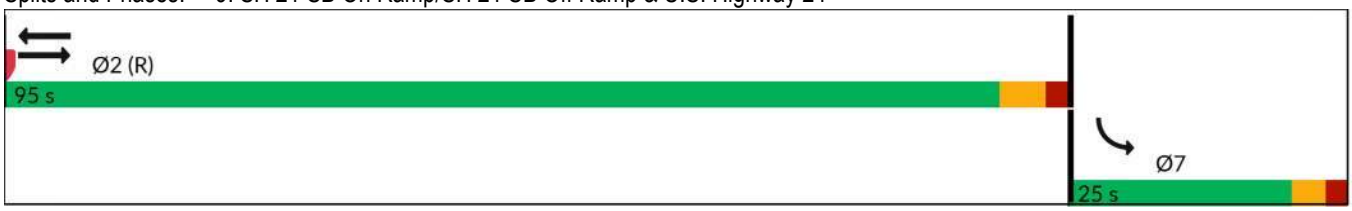
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1983	140	0	1341	689	0	0	0	202	0	457
Future Volume (vph)	0	1983	140	0	1341	689	0	0	0	202	0	457
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			428						265
Lane Group Flow (vph)	0	2155	152	0	1458	749	0	0	0	220	0	497
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		95.0			95.0					25.0		
Total Split (%)		79.2%			79.2%					20.8%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		96.0	120.0		96.0	120.0				13.0		120.0
Actuated g/C Ratio		0.80	1.00		0.80	1.00				0.11		1.00
v/c Ratio		0.53	0.10		0.52	0.47				0.59		0.31
Control Delay (s/veh)		4.9	0.1		3.8	0.9				57.4		0.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		4.9	0.1		3.8	0.9				57.4		0.5
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		4.6			2.9						18.0	
Approach LOS		A			A						B	
Queue Length 50th (ft)		173	0		110	0				86		0
Queue Length 95th (ft)		236	0		159	0				124		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		4068	1583		2831	1583				572		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.53	0.10		0.52	0.47				0.38		0.31

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay (s/veh): 5.7	Intersection LOS: A
Intersection Capacity Utilization 52.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	42	0	0	26	0	1196	31	0	411	17
Future Vol, veh/h	0	0	42	0	0	26	0	1196	31	0	411	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	46	0	0	28	0	1300	34	0	447	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	233	-	-	667	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	769	0	0	401	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	769	-	-	401	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.97	14.65	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	769	401	-	-
HCM Lane V/C Ratio	-	-	0.059	0.07	-	-
HCM Ctrl Dly (s/v)	-	-	10	14.6	-	-
HCM Lane LOS	-	-	A	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	16	0	71	1151	0	13	423
Future Vol, veh/h	16	0	71	1151	0	13	423
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	17	0	77	1251	0	14	460

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	1664	626	460	0	0	1251	0
Stage 1	1405	-	-	-	-	-	-
Stage 2	258	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	88	427	734	-	-	552	-
Stage 1	192	-	-	-	-	-	-
Stage 2	761	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	71	427	734	-	-	552	-
Mov Cap-2 Maneuver	71	-	-	-	-	-	-
Stage 1	161	-	-	-	-	-	-
Stage 2	739	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	70.86	2.02	0.66
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	71	107	-
HCM Lane V/C Ratio	-	-	0.243	0.026	-
HCM Ctrl Dly (s/v)	1.5	-	70.9	11.7	0.3
HCM Lane LOS	A	-	F	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	13	8	10	16	6
Future Vol, veh/h	10	13	8	10	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	14	9	11	17	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	25	0	46	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1589	-	964	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	994	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1589	-	959	1061
Mov Cap-2 Maneuver	-	-	-	-	959	-
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	989	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.23	8.75
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	800	-
HCM Lane V/C Ratio	0.024	-	-	0.005	-
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	10	1073	741	2	606	83	342	457	2	284	1117	43
Future Volume (vph)	10	1073	741	2	606	83	342	457	2	284	1117	43
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			648			164			164			164
Lane Group Flow (vph)	11	1166	805	2	659	90	372	497	2	309	1214	47
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	44.0		10.0	44.0		18.0	45.0		21.0	48.0	
Total Split (%)	8.3%	36.7%		8.3%	36.7%		15.0%	37.5%		17.5%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	47.0	120.0	5.0	47.0	120.0	13.0	40.2	120.0	14.8	42.0	120.0
Actuated g/C Ratio	0.04	0.39	1.00	0.04	0.39	1.00	0.11	0.34	1.00	0.12	0.35	1.00
v/c Ratio	0.15	0.84	0.51	0.03	0.48	0.06	1.00	0.42	0.00	0.73	0.98	0.03
Control Delay (s/veh)	60.2	40.3	1.2	56.0	29.3	0.1	95.3	38.5	0.0	61.2	60.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.2	40.3	1.2	56.0	29.3	0.1	95.3	38.5	0.0	61.2	60.2	0.0
LOS	E	D	A	E	C	A	F	D	A	E	E	A
Approach Delay (s/veh)		24.5			25.9			62.7			58.6	
Approach LOS		C			C			E			E	
Queue Length 50th (ft)	9	420	0	2	195	0	~154	138	0	121	494	0
Queue Length 95th (ft)	29	#647	0	11	288	0	#260	271	m0	170	#651	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000		600	1000		700
Base Capacity (vph)	73	1386	1583	73	1386	1583	371	1185	1583	457	1238	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.84	0.51	0.03	0.48	0.06	1.00	0.42	0.00	0.68	0.98	0.03

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 41.5	Intersection LOS: D
Intersection Capacity Utilization 83.6%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	39	80	297	403	48	0	147	753	466	4	1793	70
Future Volume (vph)	39	80	297	403	48	0	147	753	466	4	1793	70
Satd. Flow (prot)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1863	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255						507			200
Lane Group Flow (vph)	42	87	323	438	52	0	160	818	507	4	1949	76
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	10.0		20.0	20.0		16.0	80.0		10.0	74.0	74.0
Total Split (%)	8.3%	8.3%		16.7%	16.7%		13.3%	66.7%		8.3%	61.7%	61.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	5.0	120.0	15.0	17.0		11.0	82.0	120.0	5.0	68.0	68.0
Actuated g/C Ratio	0.04	0.04	1.00	0.13	0.14		0.09	0.68	1.00	0.04	0.57	0.57
v/c Ratio	0.29	1.13	0.20	1.02	0.10		0.99	0.34	0.32	0.05	0.97	0.08
Control Delay (s/veh)	61.3	193.4	0.3	100.6	47.3		122.4	8.7	0.5	52.3	37.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.3	193.4	0.3	100.6	47.3		122.4	8.7	0.5	52.3	37.5	0.5
LOS	E	F	A	F	D		F	A	A	D	D	A
Approach Delay (s/veh)		43.1			94.9			18.1			36.2	
Approach LOS		D			F			B			D	
Queue Length 50th (ft)	17	~79	0	~188	19		128	118	0	4	483	0
Queue Length 95th (ft)	36	#189	0	#294	40		#272	198	0	m4	m#555	m1
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480			925		600	785		785
Base Capacity (vph)	143	77	1583	429	501		162	2418	1583	73	2005	983
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.29	1.13	0.20	1.02	0.10		0.99	0.34	0.32	0.05	0.97	0.08

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

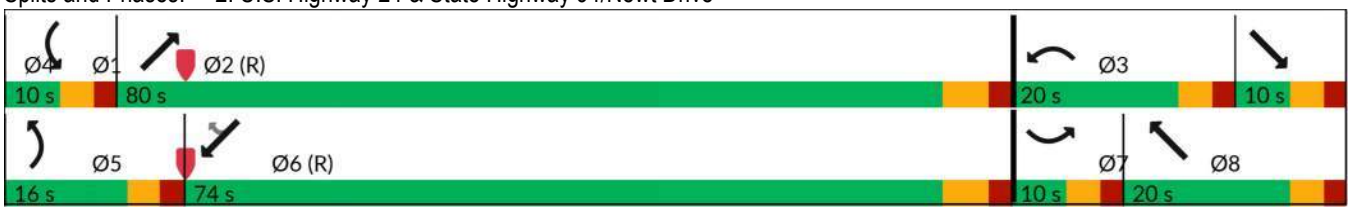
Intersection Signal Delay (s/veh): 37.3	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	4.6
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	53	217	192	224
Demand Flow Rate, veh/h	54	221	196	228
Vehicles Circulating, veh/h	321	34	297	103
Vehicles Exiting, veh/h	10	459	78	152
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	4.1	5.4	4.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	54	221	196	228
Cap Entry Lane, veh/h	995	1333	1019	1242
Entry HV Adj Factor	0.983	0.983	0.982	0.982
Flow Entry, veh/h	53	217	192	224
Cap Entry, veh/h	978	1310	1001	1219
V/C Ratio	0.054	0.166	0.192	0.184
Control Delay, s/veh	4.2	4.1	5.4	4.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	767	553	279	958
Demand Flow Rate, veh/h	782	564	285	977
Vehicles Circulating, veh/h	1080	344	490	103
Vehicles Exiting, veh/h	0	376	871	805
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	7.6	4.3	6.7
Approach LOS	A	A	A	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	LT	TR		L	TR	LT	TR		LT	TR
RT Channelized			Free					Free		
Lane Util	0.470	0.530		0.183	0.817	0.470	0.530		0.470	0.530
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	132	149	501	103	461	108	122	55	459	518
Cap Entry Lane, veh/h	500	567	1938	984	1060	860	936	1938	1228	1301
Entry HV Adj Factor	0.982	0.981	0.980	0.981	0.980	0.981	0.980	0.980	0.981	0.980
Flow Entry, veh/h	130	146	491	101	452	106	120	54	450	508
Cap Entry, veh/h	491	556	1900	965	1039	844	917	1900	1204	1275
V/C Ratio	0.264	0.263	0.258	0.105	0.435	0.126	0.130	0.028	0.374	0.398
Control Delay, s/veh	11.3	10.1	0.0	4.7	8.3	5.5	5.2	0.0	6.6	6.7
LOS	B	B	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	0	2	0	0	0	2	2

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	266	9	8	478	30	14	5	11	70	0	16
Future Vol, veh/h	102	266	9	8	478	30	14	5	11	70	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	111	289	10	9	520	33	15	5	12	76	0	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	552	0	0	299	0	0	1048	1080	289	1051	1058	-
Stage 1	-	-	-	-	-	-	511	511	-	537	537	-
Stage 2	-	-	-	-	-	-	537	570	-	514	521	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1018	-	-	1262	-	-	206	218	750	205	225	0
Stage 1	-	-	-	-	-	-	545	537	-	528	523	0
Stage 2	-	-	-	-	-	-	528	506	-	544	532	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1018	-	-	1262	-	-	182	193	750	174	199	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	193	-	174	199	-
Stage 1	-	-	-	-	-	-	486	479	-	524	519	-
Stage 2	-	-	-	-	-	-	524	502	-	471	474	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.43	0.12	21.15	40.85
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	255	1018	-	-	1262	-	-	174	-
HCM Lane V/C Ratio	0.128	0.109	-	-	0.007	-	-	0.437	-
HCM Ctrl Dly (s/v)	21.1	9	-	-	7.9	-	-	40.9	0
HCM Lane LOS	C	A	-	-	A	-	-	E	A
HCM 95th %tile Q(veh)	0.4	0.4	-	-	0	-	-	2	-

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	354	789	1051
Demand Flow Rate, veh/h	0	361	805	1071
Vehicles Circulating, veh/h	1004	812	7	698
Vehicles Exiting, veh/h	385	0	997	475
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	8.9	5.2	7.3
Approach LOS	-	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	LTR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.529	0.471	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	191	170	378	427	325	366	380
Cap Entry Lane, veh/h	640	712	1341	1412	710	785	1938
Entry HV Adj Factor	0.982	0.979	0.981	0.979	0.980	0.981	0.980
Flow Entry, veh/h	188	166	371	418	318	359	373
Cap Entry, veh/h	628	697	1315	1382	696	770	1900
V/C Ratio	0.299	0.239	0.282	0.302	0.458	0.467	0.196
Control Delay, s/veh	9.6	8.0	5.2	5.2	11.7	11.0	0.0
LOS	A	A	A	A	B	B	A
95th %tile Queue, veh	1	1	1	1	2	3	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	632	109	265	169	54	258
Future Volume (vph)	632	109	265	169	54	258
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		118		184		
Lane Group Flow (vph)	687	118	288	184	59	280
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	6
Permitted Phases				2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	25.0	25.0	24.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	40.0%	18.3%	58.3%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	17.3	17.3	18.0	18.0	8.7	31.7
Actuated g/C Ratio	0.29	0.29	0.30	0.30	0.15	0.53
v/c Ratio	0.69	0.22	0.52	0.31	0.23	0.15
Control Delay (s/veh)	22.7	4.6	21.4	4.6	27.1	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.7	4.6	21.4	4.6	27.1	8.2
LOS	C	A	C	A	C	A
Approach Delay (s/veh)	20.0		14.8			11.5
Approach LOS	C		B			B
Queue Length 50th (ft)	112	0	86	0	20	25
Queue Length 95th (ft)	155	29	153	38	52	47
Internal Link Dist (ft)	378		550			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1144	606	558	603	256	1868
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.19	0.52	0.31	0.23	0.15

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 16.7	Intersection LOS: B
Intersection Capacity Utilization 48.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Peterson Road & Galley Road



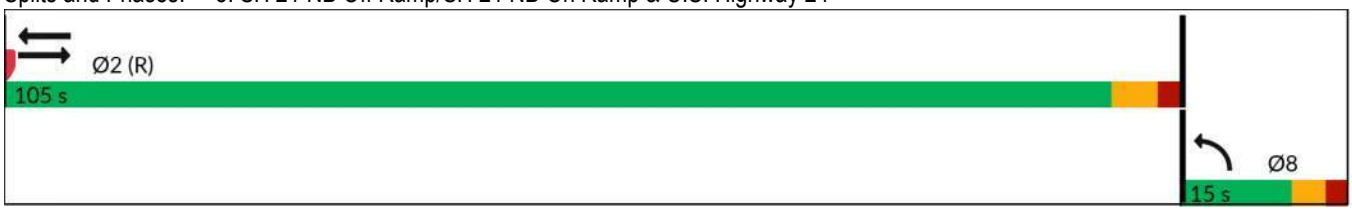
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1498	428	0	2633	213	114	0	566	0	0	0
Future Volume (vph)	0	1498	428	0	2633	213	114	0	566	0	0	0
Satd. Flow (prot)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	5029	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			179		44				172			
Lane Group Flow (vph)	0	1628	465	0	3094	0	124	0	615	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		105.0			105.0		15.0					
Total Split (%)		87.5%			87.5%		12.5%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		99.9	120.0		99.9		9.1		120.0			
Actuated g/C Ratio		0.83	1.00		0.83		0.08		1.00			
v/c Ratio		0.55	0.29		0.74		0.48		0.39			
Control Delay (s/veh)		4.6	0.4		5.7		59.3		0.7			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		4.6	0.4		5.7		59.3		0.7			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		3.7			5.7			10.6				
Approach LOS		A			A			B				
Queue Length 50th (ft)		174	0		300		48		0			
Queue Length 95th (ft)		191	0		346		80		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2947	1583		4195		286		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.55	0.29		0.74		0.43		0.39			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 5.6	Intersection LOS: A
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



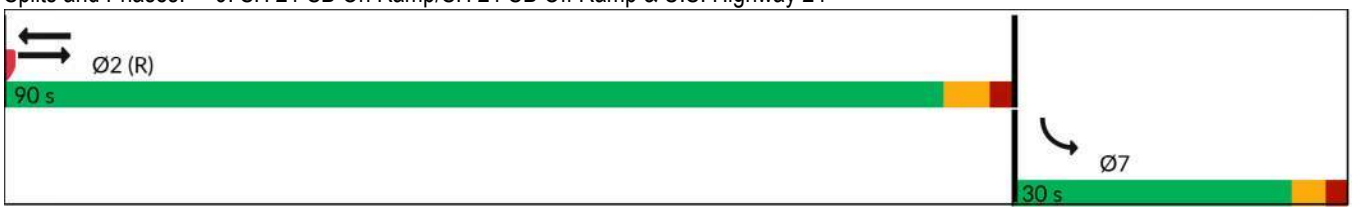
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1473	165	0	1821	964	0	0	0	465	0	468
Future Volume (vph)	0	1473	165	0	1821	964	0	0	0	465	0	468
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			441						268
Lane Group Flow (vph)	0	1601	179	0	1979	1048	0	0	0	505	0	509
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		90.0			90.0					30.0		
Total Split (%)		75.0%			75.0%					25.0%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		86.9	120.0		86.9	120.0				22.1		120.0
Actuated g/C Ratio		0.72	1.00		0.72	1.00				0.18		1.00
v/c Ratio		0.43	0.11		0.77	0.66				0.80		0.32
Control Delay (s/veh)		7.3	0.1		9.5	2.1				56.7		0.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		7.3	0.1		9.5	2.1				56.7		0.5
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		6.6			6.9						28.5	
Approach LOS		A			A						C	
Queue Length 50th (ft)		167	0		242	8				196		0
Queue Length 95th (ft)		210	0		285	24				252		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		3681	1583		2562	1583				715		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.43	0.11		0.77	0.66				0.71		0.32

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 10.6	Intersection LOS: B
Intersection Capacity Utilization 71.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	0	0	21	0	412	9	0	878	9
Future Vol, veh/h	0	0	30	0	0	21	0	412	9	0	878	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	33	0	0	23	0	448	10	0	954	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	482	-	-	229	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*861	0	0	774	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0					-	-		-	-
Mov Cap-1 Maneuver	-	-	*861	-	-	774	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.35	9.79	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	861	774	-	-
HCM Lane V/C Ratio	-	-	0.038	0.029	-	-
HCM Ctrl Dly (s/v)	-	-	9.3	9.8	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	69	27	42	376	15	13	879
Future Vol, veh/h	69	27	42	376	15	13	879
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	150	0	-	-	150	150	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	75	29	46	409	16	14	955

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	1006	204	955	0	0	425	0
Stage 1	500	-	-	-	-	-	-
Stage 2	506	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	*404	802	614	-	-	1131	-
Stage 1	*575	-	-	-	-	-	-
Stage 2	*812	-	-	-	-	-	-
Platoon blocked, %	0		0	-	-		-
Mov Cap-1 Maneuver	*365	802	614	-	-	1131	-
Mov Cap-2 Maneuver	*365	-	-	-	-	-	-
Stage 1	*526	-	-	-	-	-	-
Stage 2	*802	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.21	1.1	0.12
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	365	802	1131	-
HCM Lane V/C Ratio	-	-	0.205	0.037	0.012	-
HCM Ctrl Dly (s/v)	-	-	17.4	9.7	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.1	0	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	28	10	3	96	27
Future Vol, veh/h	15	28	10	3	96	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	30	11	3	104	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	41	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1561	-	970	1063
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1561	-	963	1063
Mov Cap-2 Maneuver	-	-	-	-	963	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	991	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.63	9.24
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	983	-	-	1561	-
HCM Lane V/C Ratio	0.136	-	-	0.007	-
HCM Ctrl Dly (s/v)	9.2	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	632	447	6	1170	258	769	1065	0	172	575	22
Future Volume (vph)	20	632	447	6	1170	258	769	1065	0	172	575	22
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	3433	3539	1863	3433	3539	1583
Satd. Flow (RTOR)			486			209						209
Lane Group Flow (vph)	22	687	486	7	1272	280	836	1158	0	187	625	24
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	
Total Split (s)	10.0	47.0		10.0	47.0		34.0	50.0		13.0	29.0	
Total Split (%)	8.3%	39.2%		8.3%	39.2%		28.3%	41.7%		10.8%	24.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	5.0	50.0	120.0	5.0	46.0	120.0	29.0	44.0		8.0	23.0	120.0
Actuated g/C Ratio	0.04	0.42	1.00	0.04	0.38	1.00	0.24	0.37		0.07	0.19	1.00
v/c Ratio	0.30	0.47	0.31	0.10	0.94	0.18	1.01	0.89		0.82	0.92	0.02
Control Delay (s/veh)	66.7	27.2	0.5	58.3	50.2	0.2	71.5	60.4		82.6	67.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	66.7	27.2	0.5	58.3	50.2	0.2	71.5	60.4		82.6	67.9	0.0
LOS	E	C	A	E	D	A	E	E		F	E	A
Approach Delay (s/veh)		17.1			41.3			65.1			69.2	
Approach LOS		B			D			E			E	
Queue Length 50th (ft)	17	196	0	5	~562	0	~368	462		76	256	0
Queue Length 95th (ft)	46	290	0	22	#702	0	m#495	#597		#138	#366	0
Internal Link Dist (ft)		613			608			1138			867	
Turn Bay Length (ft)	375		500	295		350	1000			1000		700
Base Capacity (vph)	73	1474	1583	73	1356	1583	829	1297		228	678	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.30	0.47	0.31	0.10	0.94	0.18	1.01	0.89		0.82	0.92	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

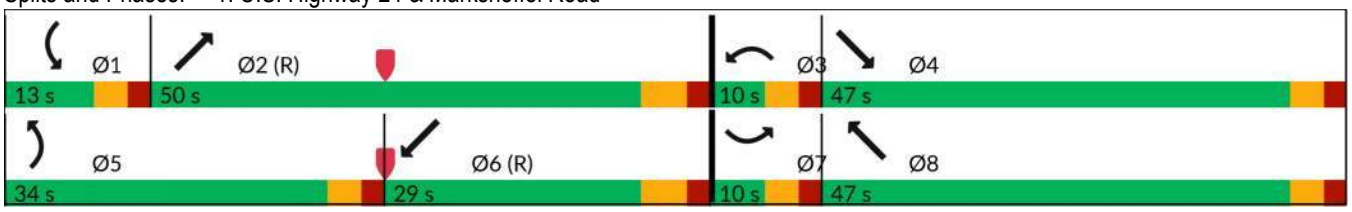
Intersection Signal Delay (s/veh): 48.8	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: U.S. Highway 24 & Marksheffel Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	31	72	182	386	78	4	204	1807	403	6	960	44
Future Volume (vph)	31	72	182	386	78	4	204	1807	403	6	960	44
Satd. Flow (prot)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1863	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Satd. Flow (RTOR)			255			255			318			200
Lane Group Flow (vph)	34	78	198	420	85	4	222	1964	438	7	1043	48
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	11.0		10.0	11.0	11.0
Total Split (s)	10.0	12.0		22.0	24.0		28.0	76.0		10.0	58.0	58.0
Total Split (%)	8.3%	10.0%		18.3%	20.0%		23.3%	63.3%		8.3%	48.3%	48.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	5.0	7.0	120.0	16.7	22.7	120.0	19.4	78.3	120.0	5.1	55.9	55.9
Actuated g/C Ratio	0.04	0.06	1.00	0.14	0.19	1.00	0.16	0.65	1.00	0.04	0.47	0.47
v/c Ratio	0.24	0.72	0.13	0.88	0.13	0.00	0.78	0.85	0.28	0.09	0.63	0.06
Control Delay (s/veh)	59.8	90.2	0.2	70.7	42.8	0.0	66.6	21.8	0.4	49.2	38.2	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.8	90.2	0.2	70.7	42.8	0.0	66.6	21.8	0.4	49.2	38.2	1.1
LOS	E	F	A	E	D	A	E	C	A	D	D	A
Approach Delay (s/veh)		29.4			65.5			22.0			36.7	
Approach LOS		C			E			C			D	
Queue Length 50th (ft)	13	61	0	169	30	0	168	556	0	6	308	0
Queue Length 95th (ft)	31	#144	0	#254	55	0	251	#943	0	m11	m370	m3
Internal Link Dist (ft)		298			639			638			496	
Turn Bay Length (ft)	235		235	480		480	925		600	785		785
Base Capacity (vph)	143	108	1583	486	670	1583	339	2308	1583	75	1648	844
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.72	0.13	0.86	0.13	0.00	0.65	0.85	0.28	0.09	0.63	0.06

Intersection Summary

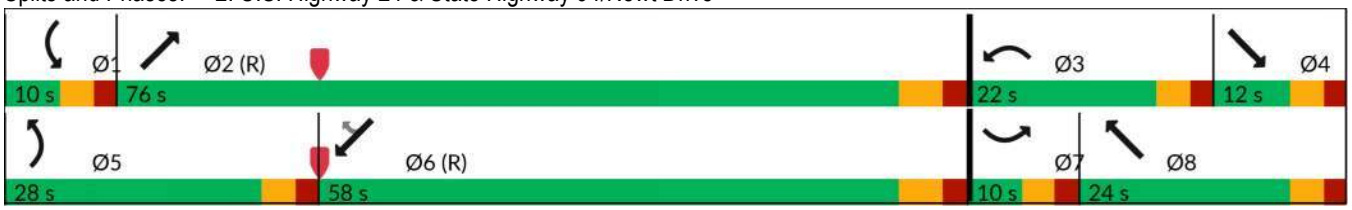
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 30.9	Intersection LOS: C
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: U.S. Highway 24 & State Highway 94/Newt Drive



Intersection	
Intersection Delay, s/veh	4.7
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	276	83	254
Demand Flow Rate, veh/h	21	281	85	259
Vehicles Circulating, veh/h	391	28	259	166
Vehicles Exiting, veh/h	34	316	153	143
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	4.5	4.2	5.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	21	281	85	259
Cap Entry Lane, veh/h	926	1341	1060	1165
Entry HV Adj Factor	0.983	0.982	0.982	0.982
Flow Entry, veh/h	21	276	83	254
Cap Entry, veh/h	911	1317	1041	1144
V/C Ratio	0.023	0.210	0.080	0.222
Control Delay, s/veh	4.2	4.5	4.2	5.2
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection	
Intersection Delay, s/veh	21.1
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	467	416	1364	284
Demand Flow Rate, veh/h	476	424	1392	290
Vehicles Circulating, veh/h	294	1390	740	4
Vehicles Exiting, veh/h	0	405	12	1810
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.0	65.6	16.2	4.5
Approach LOS	A	F	C	A

Lane	Left	Right	Bypass	Left	Right	Left	Right	Bypass	Left	Right
Designated Moves	LT	TR	R	L	TR	LT	TR	R	LT	TR
Assumed Moves	L	TR		L	TR	LT	TR		L	TR
RT Channelized			Free					Free		
Lane Util	0.731	0.269		0.009	0.991	0.470	0.530		0.972	0.028
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535		2.667	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328		4.645	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420		1350	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4		9.199e-4	8.501e-4
Entry Flow, veh/h	335	123	18	4	420	496	559	337	282	8
Cap Entry Lane, veh/h	1030	1106	1938	376	436	683	757	1938	1345	1415
Entry HV Adj Factor	0.979	0.980	0.980	1.000	0.981	0.980	0.981	0.980	0.979	0.980
Flow Entry, veh/h	328	121	18	4	412	486	548	330	276	8
Cap Entry, veh/h	1008	1084	1900	376	427	670	742	1900	1316	1388
V/C Ratio	0.325	0.111	0.009	0.011	0.964	0.726	0.738	0.174	0.210	0.006
Control Delay, s/veh	6.9	4.3	0.0	9.7	66.2	21.9	20.9	0.0	4.5	2.6
LOS	A	A	A	A	F	C	C	A	A	A
95th %tile Queue, veh	1	0	0	0	12	6	7	1	1	0

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	326	313	11	2	293	24	11	8	12	25	0	80
Future Vol, veh/h	326	313	11	2	293	24	11	8	12	25	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	300	-	-	200	-	80	-	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	354	340	12	2	318	26	12	9	13	27	0	87

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	345	0	0	352	0	0	1372	1398	340	1376	1384	-
Stage 1	-	-	-	-	-	-	1049	1049	-	323	323	-
Stage 2	-	-	-	-	-	-	323	349	-	1053	1061	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	1214	-	-	1207	-	-	123	141	702	122	144	0
Stage 1	-	-	-	-	-	-	275	304	-	689	650	0
Stage 2	-	-	-	-	-	-	689	634	-	273	301	0
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1214	-	-	1207	-	-	87	99	702	80	101	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	99	-	80	101	-
Stage 1	-	-	-	-	-	-	195	216	-	688	649	-
Stage 2	-	-	-	-	-	-	688	632	-	182	213	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.6	0.05	39.14	72.13
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	139	1214	-	-	1207	-	-	80	-
HCM Lane V/C Ratio	0.243	0.292	-	-	0.002	-	-	0.342	-
HCM Ctrl Dly (s/v)	39.1	9.2	-	-	8	-	-	72.1	0
HCM Lane LOS	E	A	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	0.9	1.2	-	-	0	-	-	1.3	-

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	0	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	112	1776	524
Demand Flow Rate, veh/h	0	114	1812	535
Vehicles Circulating, veh/h	310	1821	9	514
Vehicles Exiting, veh/h	499	0	301	1421
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	19.1	11.0	3.2
Approach LOS	-	C	B	A

Lane	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	L	LTR	LT	TR	LT	TR	R
Assumed Moves	L	TR	LT	TR	LT	TR	
RT Channelized							Free
Lane Util	0.132	0.868	0.470	0.530	0.471	0.529	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	
A (Intercept)	1350	1420	1350	1420	1350	1420	
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	
Entry Flow, veh/h	15	99	852	960	139	156	240
Cap Entry Lane, veh/h	253	302	1339	1409	841	917	1938
Entry HV Adj Factor	1.000	0.979	0.980	0.981	0.978	0.983	0.980
Flow Entry, veh/h	15	97	835	941	136	153	235
Cap Entry, veh/h	253	296	1312	1382	823	901	1900
V/C Ratio	0.059	0.328	0.636	0.681	0.165	0.170	0.124
Control Delay, s/veh	15.4	19.6	10.6	11.4	6.1	5.7	0.0
LOS	C	C	B	B	A	A	A
95th %tile Queue, veh	0	1	5	6	1	1	0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	220	63	280	932	168	227
Future Volume (vph)	220	63	280	932	168	227
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Satd. Flow (RTOR)		68		842		
Lane Group Flow (vph)	239	68	304	1013	183	247
Turn Type	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	8	8	2		1	6
Permitted Phases				2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	23.0	23.0	10.0	10.0	9.0	10.0
Total Split (s)	23.0	23.0	26.0	26.0	11.0	37.0
Total Split (%)	38.3%	38.3%	43.3%	43.3%	18.3%	61.7%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	Max	C-Max
Act Effct Green (s)	9.5	9.5	20.0	20.0	14.5	39.5
Actuated g/C Ratio	0.16	0.16	0.33	0.33	0.24	0.66
v/c Ratio	0.44	0.22	0.49	0.93	0.43	0.11
Control Delay (s/veh)	25.0	8.3	19.2	21.1	23.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.0	8.3	19.2	21.1	23.8	4.2
LOS	C	A	B	C	C	A
Approach Delay (s/veh)	21.3		20.6			12.6
Approach LOS	C		C			B
Queue Length 50th (ft)	41	0	87	46	57	14
Queue Length 95th (ft)	67	28	152	#347	116	28
Internal Link Dist (ft)	378		528			377
Turn Bay Length (ft)	250	250		325	100	
Base Capacity (vph)	1029	522	621	1089	428	2330
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.13	0.49	0.93	0.43	0.11

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 19.0	Intersection LOS: B
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Peterson Road & Galley Road



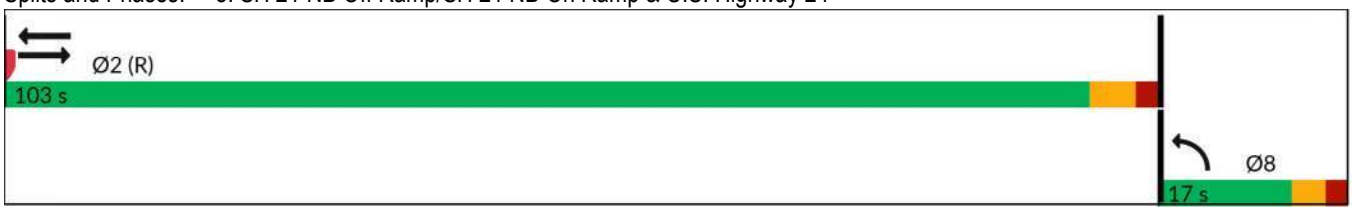
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1750	458	0	1915	245	149	0	846	0	0	0
Future Volume (vph)	0	1750	458	0	1915	245	149	0	846	0	0	0
Satd. Flow (prot)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	3539	1583	0	4999	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)			164		70				161			
Lane Group Flow (vph)	0	1902	498	0	2348	0	162	0	920	0	0	0
Turn Type		NA	Free		NA		Prot		Free			
Protected Phases		2			2		8					
Permitted Phases			Free						Free			
Detector Phase		2			2		8					
Switch Phase												
Minimum Initial (s)		4.0			4.0		4.0					
Minimum Split (s)		10.0			10.0		9.0					
Total Split (s)		103.0			103.0		17.0					
Total Split (%)		85.8%			85.8%		14.2%					
Yellow Time (s)		4.0			4.0		3.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)		0.0			0.0		0.0					
Total Lost Time (s)		6.0			6.0		5.0					
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		None					
Act Effct Green (s)		98.5	120.0		98.5		10.5		120.0			
Actuated g/C Ratio		0.82	1.00		0.82		0.09		1.00			
v/c Ratio		0.65	0.31		0.57		0.54		0.58			
Control Delay (s/veh)		3.7	0.4		4.2		59.0		1.6			
Queue Delay		0.0	0.0		0.0		0.0		0.0			
Total Delay (s/veh)		3.7	0.4		4.2		59.0		1.6			
LOS		A	A		A		E		A			
Approach Delay (s/veh)		3.0			4.2			10.2				
Approach LOS		A			A			B				
Queue Length 50th (ft)		114	0		176		63		0			
Queue Length 95th (ft)		122	0		213		99		0			
Internal Link Dist (ft)		1227			850			671			555	
Turn Bay Length (ft)			100				650		900			
Base Capacity (vph)		2904	1583		4115		343		1583			
Starvation Cap Reductn		0	0		0		0		0			
Spillback Cap Reductn		0	0		0		0		0			
Storage Cap Reductn		0	0		0		0		0			
Reduced v/c Ratio		0.65	0.31		0.57		0.47		0.58			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay (s/veh): 4.8	Intersection LOS: A
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: SH 21 NB Off Ramp/SH 21 NB On Ramp & U.S. Highway 24



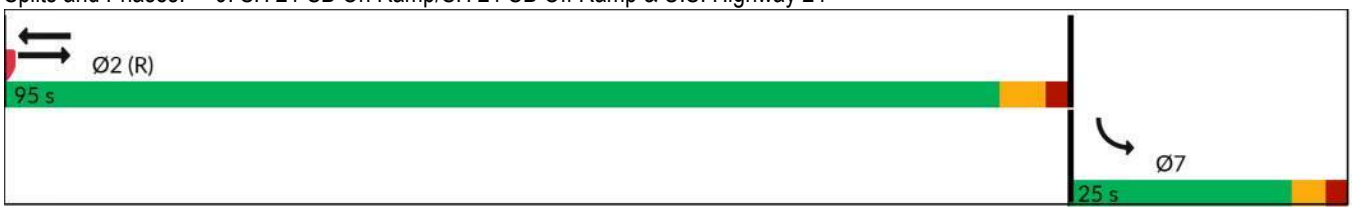
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2011	140	0	1359	700	0	0	0	202	0	457
Future Volume (vph)	0	2011	140	0	1359	700	0	0	0	202	0	457
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Flt Permitted										0.950		
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	0	0	3433	0	1583
Satd. Flow (RTOR)			73			429						263
Lane Group Flow (vph)	0	2186	152	0	1477	761	0	0	0	220	0	497
Turn Type		NA	Free		NA	Free				Prot		Free
Protected Phases		2			2					7		
Permitted Phases			Free			Free						Free
Detector Phase		2			2					7		
Switch Phase												
Minimum Initial (s)		4.0			4.0					4.0		
Minimum Split (s)		10.0			10.0					9.0		
Total Split (s)		95.0			95.0					25.0		
Total Split (%)		79.2%			79.2%					20.8%		
Yellow Time (s)		4.0			4.0					3.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		0.0			0.0					0.0		
Total Lost Time (s)		6.0			6.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		96.0	120.0		96.0	120.0				13.0		120.0
Actuated g/C Ratio		0.80	1.00		0.80	1.00				0.11		1.00
v/c Ratio		0.54	0.10		0.52	0.48				0.59		0.31
Control Delay (s/veh)		5.0	0.1		3.9	0.9				57.4		0.5
Queue Delay		0.0	0.0		0.0	0.0				0.0		0.0
Total Delay (s/veh)		5.0	0.1		3.9	0.9				57.4		0.5
LOS		A	A		A	A				E		A
Approach Delay (s/veh)		4.7			2.9						18.0	
Approach LOS		A			A						B	
Queue Length 50th (ft)		178	0		111	0				86		0
Queue Length 95th (ft)		242	0		161	0				124		0
Internal Link Dist (ft)		934			1227			209			364	
Turn Bay Length (ft)			50			340						525
Base Capacity (vph)		4068	1583		2831	1583				572		1583
Starvation Cap Reductn		0	0		0	0				0		0
Spillback Cap Reductn		0	0		0	0				0		0
Storage Cap Reductn		0	0		0	0				0		0
Reduced v/c Ratio		0.54	0.10		0.52	0.48				0.38		0.31

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay (s/veh): 5.7	Intersection LOS: A
Intersection Capacity Utilization 53.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: SH 21 SB On Ramp/SH 21 SB Off Ramp & U.S. Highway 24



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	42	0	0	26	0	1243	31	0	400	17
Future Vol, veh/h	0	0	42	0	0	26	0	1243	31	0	400	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	46	0	0	28	0	1351	34	0	435	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	227	-	-	692	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	1001	0	0	386	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0					-	-		-	-
Mov Cap-1 Maneuver	-	-	1001	-	-	386	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.77	15.06	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	1001	386	-	-
HCM Lane V/C Ratio	-	-	0.046	0.073	-	-
HCM Ctrl Dly (s/v)	-	-	8.8	15.1	-	-
HCM Lane LOS	-	-	A	C	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-	-

Intersection	
Int Delay, s/veh	6.2

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	45	17	71	1151	47	42	423
Future Vol, veh/h	45	17	71	1151	47	42	423
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	150	0	-	-	150	150	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	49	18	77	1251	51	46	460

Major/Minor	Minor1		Major1			Major2	
Conflicting Flow All	1727	626	460	0	0	1302	0
Stage 1	1405	-	-	-	-	-	-
Stage 2	321	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	-	-	2.22	-
Pot Cap-1 Maneuver	80	427	734	-	-	528	-
Stage 1	192	-	-	-	-	-	-
Stage 2	708	-	-	-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	61	427	734	-	-	528	-
Mov Cap-2 Maneuver	61	-	-	-	-	-	-
Stage 1	161	-	-	-	-	-	-
Stage 2	647	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	129.72	1.99	1.13
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	61	427	528	-
HCM Lane V/C Ratio	-	-	0.805	0.043	0.087	-
HCM Ctrl Dly (s/v)	1.5	-	173.5	13.8	12.5	-
HCM Lane LOS	A	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	3.6	0.1	0.3	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	89	28	10	62	17
Future Vol, veh/h	10	89	28	10	62	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	97	30	11	67	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	83	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	72	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	919	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	951	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	900	1070
Mov Cap-2 Maneuver	-	-	-	-	900	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.51	9.25
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	932	-	-	1483	-
HCM Lane V/C Ratio	0.092	-	-	0.021	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

APPENDIX D

Existing Adjacent Commercial Trip Generation Estimates

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
320	Motel	RMS	3.35	0.13	0.22	0.35	0.19	0.17	0.36
822	Strip Retail Plaza (<40k)	KSF	54.45	1.42	0.94	2.36	3.30	3.30	6.59
945	Convenience Store/Gas Station	VFP	265.12	8.03	8.03	16.06	9.21	9.21	18.42

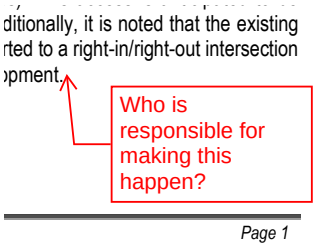
Key: RMS = Rooms.
KSF = Thousand Square Feet Gross Floor Area.
VFP = Vehicle Fueling Positions.
Note: All data and calculations above are subject to being rounded to nearest value.

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
320	Motel	71 RMS	238	9	16	25	14	12	26
822	Strip Retail Plaza (<40k)	20.6 KSF	1,122	29	19	49	68	68	136
945	Convenience Store/Gas Station	8 VFP	2,121	64	64	128	74	74	147
		Total:	*3,480*	*103*	*99*	*202*	*155*	*153*	*309*

Key: RMS = Rooms.
KSF = Thousand Square Feet Gross Floor Area.
VFP = Vehicle Fueling Positions.
Note: All data and calculations above are subject to being rounded to nearest value.

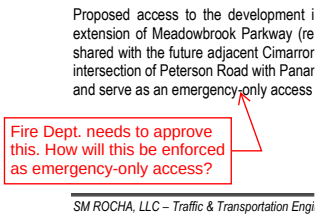
Document2.pdf Markup Summary

Callout (24)



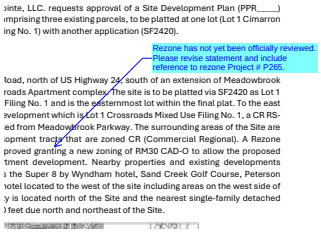
Subject: Callout
Page Label: V2 (Rezone) - TIS 1
Author: dotbarnhart
Date: 5/5/2026 6:31:54 AM
Status:
Color:
Layer:
Space:

Who is responsible for making this happen?



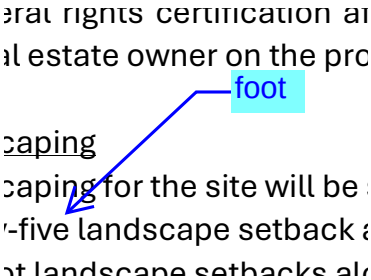
Subject: Callout
Page Label: V2 (Rezone) - TIS 1
Author: dotbarnhart
Date: 5/5/2026 6:34:32 AM
Status:
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Fire Dept. needs to approve this. How will this be enforced as emergency-only access?



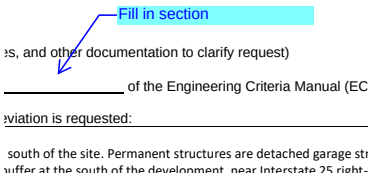
Subject: Callout
Page Label: Document1 Letter of Intent 2
Author: CDurham
Date: 5/18/2026 10:06:51 AM
Status:
Color:
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Rezone has not yet been officially reviewed. Please revise statement and include reference to rezone Project # P265.



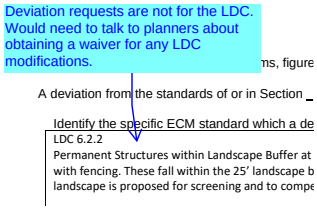
Subject: Callout
Page Label: Document1 Letter of Intent 6
Author: CDurham
Date: 5/18/2026 12:29:49 PM
Status:
Color:
Layer:
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foot



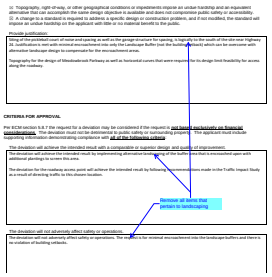
Subject: Callout
Page Label: Document1 Deviation Request Packet 2
Author: CDurham
Date: 5/18/2026 12:49:13 PM
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Color:
Layer:
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Fill in section



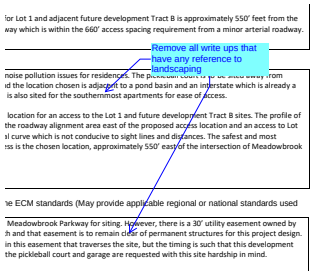
Subject: Callout
Page Label: Document1 Deviation Request Packet 2
Author: CDurham
Date: 5/18/2026 12:50:08 PM
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Deviation requests are not for the LDC. Would need to talk to planners about obtaining a waiver for any LDC modifications.



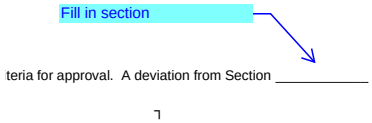
Subject: Callout
Page Label: Document1 Deviation Request Packet 3
Author: CDurham
Date: 5/18/2026 12:54:41 PM
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Remove all items that pertain to landscaping



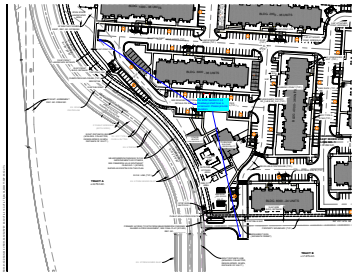
Subject: Callout
Page Label: Document1 Deviation Request Packet 2
Author: CDurham
Date: 5/18/2026 12:54:32 PM
Status:
Color:
Layer:
Space:

Remove all write ups that have any reference to landscaping



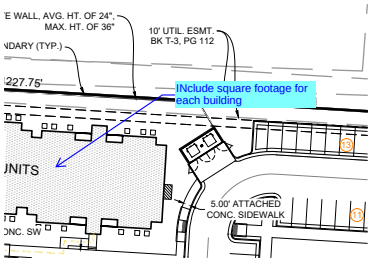
Subject: Callout
Page Label: Document1 Deviation Request Packet 5
Author: CDurham
Date: 5/18/2026 12:55:56 PM
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Layer:
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Fill in section



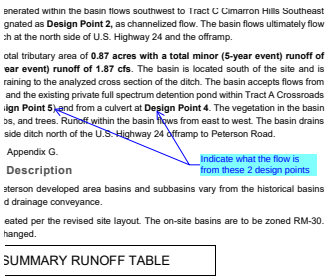
Subject: Callout
Page Label: Document1 Site Development Plan [2] 2 SITE PLAN
Author: CDurham
Date: 5/18/2026 5:37:27 PM
Status:
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Layer:
Space:

Per ECM Section 2.3.8 Roadways shall have a turnaround. Please provide deviation.



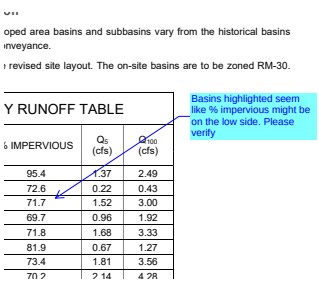
Subject: Callout
Page Label: Document1 Site Development Plan [2] 2 SITE PLAN
Author: CDurham
Date: 5/19/2026 7:13:29 AM
Status:
Color:
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Space:

INclude square footage for each building



Subject: Callout
Page Label: Document1 Drainage Report - Final 7
Author: CDurham
Date: 5/19/2026 9:03:14 AM
Status:
Color:
Layer:
Space:

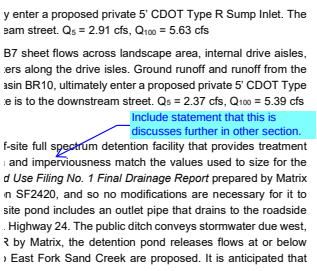
Indicate what the flow is from these 2 design points



Subject: Callout
Page Label: Document1 Drainage Report - Final 7
Author: CDurham
Date: 5/19/2026 10:13:43 AM
Status:
Color:
Layer:
Space:

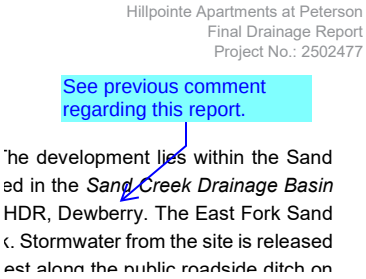
Basins highlighted seem like % impervious might be on the low side. Please verify

---



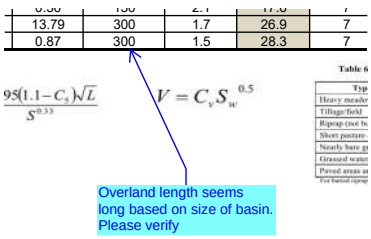
Subject: Callout
Page Label: Document1 Drainage Report - Final 11
Author: CDurham
Date: 5/19/2026 10:56:11 AM
Status:
Color:
Layer:
Space:

Include statement that this is discusses further in other section.



Subject: Callout
Page Label: Document1 Drainage Report - Final 13
Author: CDurham
Date: 5/19/2026 10:57:12 AM
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Color:
Layer:
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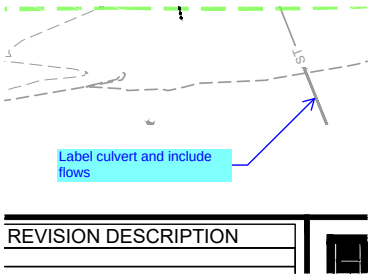
See previous comment regarding this report.



Subject: Callout
Page Label: Document1 Drainage Report - Final 24
Author: CDurham
Date: 5/19/2026 11:03:28 AM
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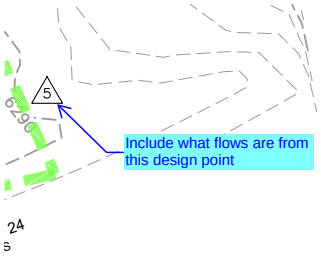
Overland length seems long based on size of basin. Please verify

---



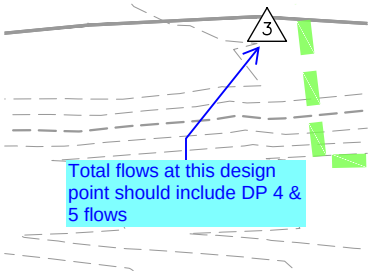
Subject: Callout
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:13:54 AM
Status:
Color:
Layer:
Space:

Label culvert and include flows



Subject: Callout
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:14:11 AM
Status:
Color:
Layer:
Space:

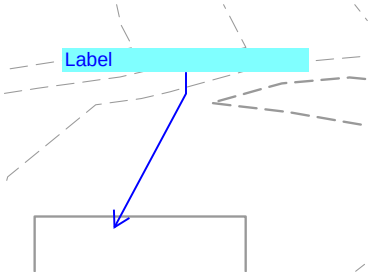
Include what flows are from this design point



Subject: Callout
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:14:33 AM
Status:
Color:
Layer:
Space:

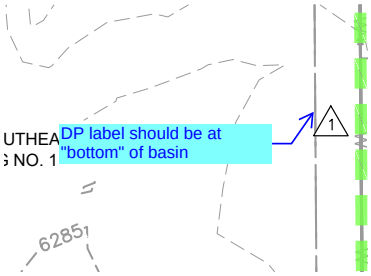
Total flows at this design point should include DP 4 & 5 flows

---



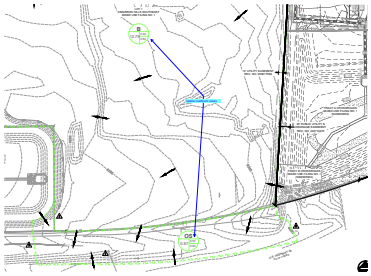
Subject: Callout
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:15:47 AM
Status:
Color:
Layer:
Space:

Label



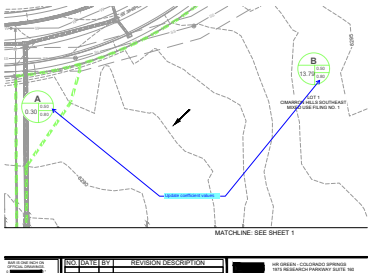
Subject: Callout
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:17:44 AM
Status:
Color:
Layer:
Space:

DP label should be at "bottom" of basin



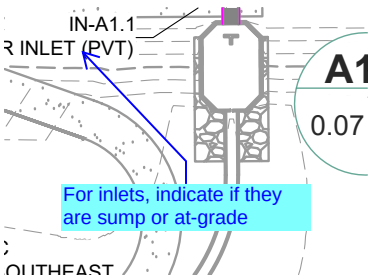
Subject: Callout
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:20:04 AM
Status:
Color:
Layer:
Space:

Update coefficient values



Subject: Callout
Page Label: Document1 Drainage Report - Final 43
Author: CDurham
Date: 5/19/2026 11:20:38 AM
Status:
Color:
Layer:
Space:

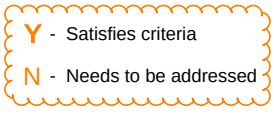
Update coefficient values



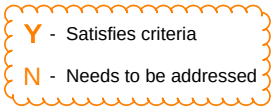
Subject: Callout
Page Label: Document1 Drainage Report - Final 44
Author: CDurham
Date: 5/19/2026 11:21:24 AM
Status:
Color:
Layer:
Space:

For inlets, indicate if they are sump or at-grade

Checkmark Legend (2)

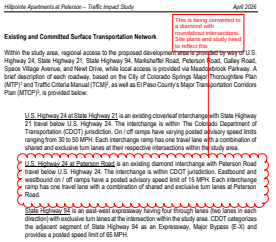


Subject: Checkmark Legend
Page Label: Document1 Grading & Erosion Control (GEC) Checklist 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 8:48:53 AM
Status:
Color:
Layer:
Space:



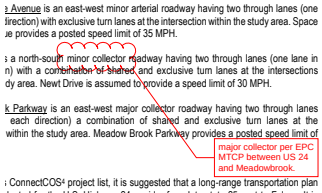
Subject: Checkmark Legend
Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 10:47:00 AM
Status:
Color:
Layer:
Space:

Cloud+ (8)



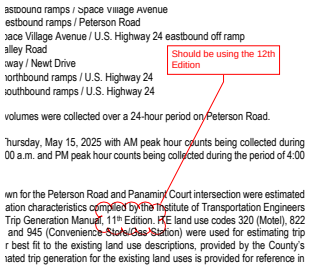
Subject: Cloud+
Page Label: V2 (Rezone) - TIS 5
Author: dotbarnhart
Date: 5/5/2026 6:36:56 AM
Status:
Color:
Layer:
Space:

This is being converted to a diamond with roundabout intersections. Site plans and study need to reflect this



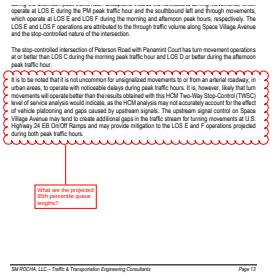
Subject: Cloud+
Page Label: V2 (Rezone) - TIS 6
Author: dotbarnhart
Date: 5/5/2026 6:41:50 AM
Status:
Color:
Layer:
Space:

major collector per EPC MTCP between US 24 and Meadowbrook.



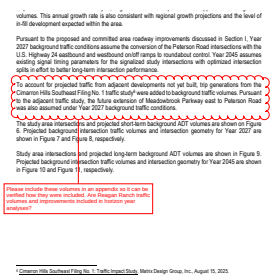
Subject: Cloud+
Page Label: V2 (Rezone) - TIS 7
Author: dotbarnhart
Date: 5/5/2026 6:44:09 AM
Status:
Color:
Layer:
Space:

Should be using the 12th Edition



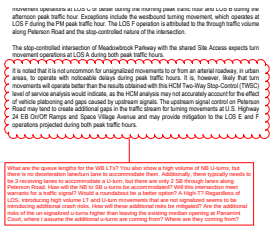
Subject: Cloud+
Page Label: V2 (Rezone) - TIS 13
Author: dotbarnhart
Date: 5/5/2026 6:49:12 AM
Status:
Color:
Layer:
Space:

What are the projected 95th percentile queue lengths?



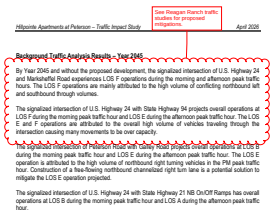
Subject: Cloud+
Page Label: V2 (Rezone) - TIS 14
Author: dotbarnhart
Date: 5/5/2026 6:54:50 AM
Status:
Color:
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Space:

Please include these volumes in an appendix so it can be verified how they were included. Are Reagan Ranch traffic volumes and improvements included in horizon year analyses?



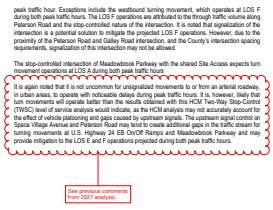
Subject: Cloud+
Page Label: V2 (Rezone) - TIS 24
Author: dotbarnhart
Date: 5/5/2026 7:05:41 AM
Status:
Color:
Layer:
Space:

What are the queue lengths for the WB LTs? You also show a high volume of NB U-turns, but there is no deceleration lane/turn lane to accommodate them. Additionally, there typically needs to be 3 receiving lanes to accommodate a U-turn, but there are only 2 SB through lanes along Peterson Road. How will the NB to SB u-turns be accommodated? Will this intersection meet warrants for a traffic signal? Would a roundabout be a better option? A High-T? Regardless of LOS, introducing high volume LT and U-turn movements that are not signalized seems to be introducing additional crash risks. How will these additional risks be mitigated? Are the additional risks of the un-signalized u-turns higher than leaving the existing median opening at Panamint Court, where I assume the additional u-turns are coming from? Where are they coming from?



Subject: Cloud+
Page Label: V2 (Rezone) - TIS 26
Author: dotbarnhart
Date: 5/5/2026 7:07:01 AM
Status:
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Space:

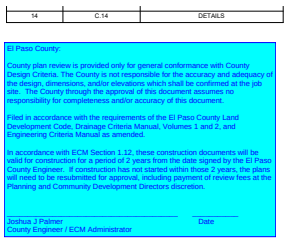
See Reagan Ranch traffic studies for proposed mitigations.



Subject: Cloud+
Page Label: V2 (Rezone) - TIS 27
Author: dotbarnhart
Date: 5/5/2026 7:08:14 AM
Status:
Color:
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Space:

See previous comments from 2027 analysis.

Construction Drawings - County (1)



Subject: Construction Drawings - County
Page Label: Document1 Construction Drawings (Plans-Profiles) [1] 01 STORM COVER & NOTES
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 12:55:01 PM
Status:
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El Paso County:

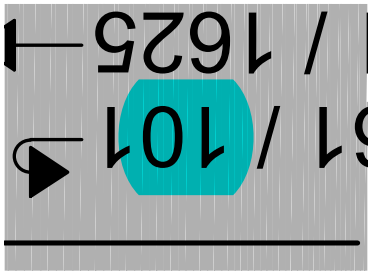
County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual, Volumes 1 and 2, and Engineering Criteria Manual as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

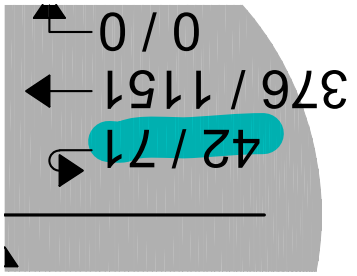
_____
_____
_____
Joshua J Palmer
Date
County Engineer / ECM Administrator

Engineer (35)

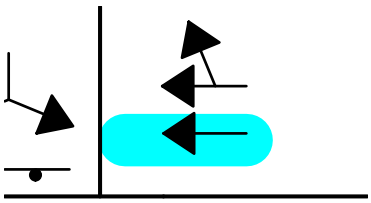


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Page Label: V2 (Rezone) - TIS 19
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 10:17:01 AM
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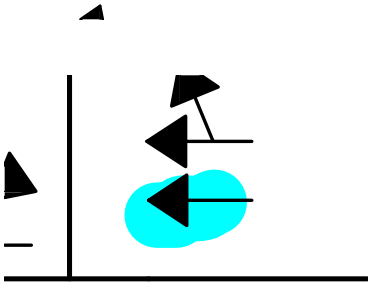
10



Subject: Engineer
Page Label: V2 (Rezone) - TIS 16
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 10:17:41 AM
Status:
Color:
Layer:
Space:



Subject: Engineer
Page Label: V2 (Rezone) - TIS 17
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 10:17:55 AM
Status:
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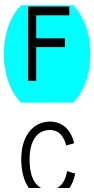
Subject: Engineer
Page Label: V2 (Rezone) - TIS 20
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 10:18:04 AM
Status:
Color:
Layer:
Space:

F



Subject: Engineer
Page Label: V2 (Rezone) - TIS 22
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 10:21:47 AM
Status:
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Layer:
Space:

F

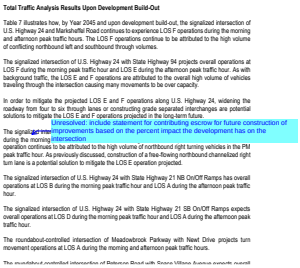


Subject: Engineer
Page Label: V2 (Rezone) - TIS 42
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 1:52:36 PM
Status:
Color:
Layer:
Space:



Subject: Engineer
Page Label: V2 (Rezone) - TIS 42
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 1:52:37 PM
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Layer:
Space:

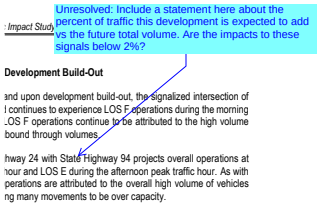
F



Subject: Engineer
Page Label: V2 (Rezone) - TIS 43
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 4:21:57 PM
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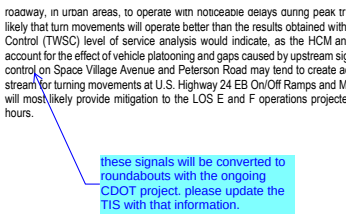
Unresolved: include statement for contributing escrow for future construction of improvements based on the percent impact the development has on the intersection

---



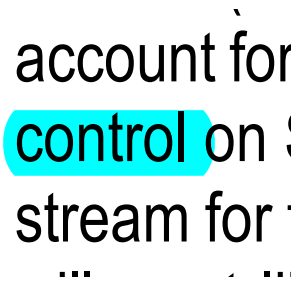
Subject: Engineer
Page Label: V2 (Rezone) - TIS 43
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 4:21:48 PM
Status:
Color:
Layer:
Space:

Unresolved: Include a statement here about the percent of traffic this development is expected to add vs the future total volume. Are the impacts to these signals below 2%?



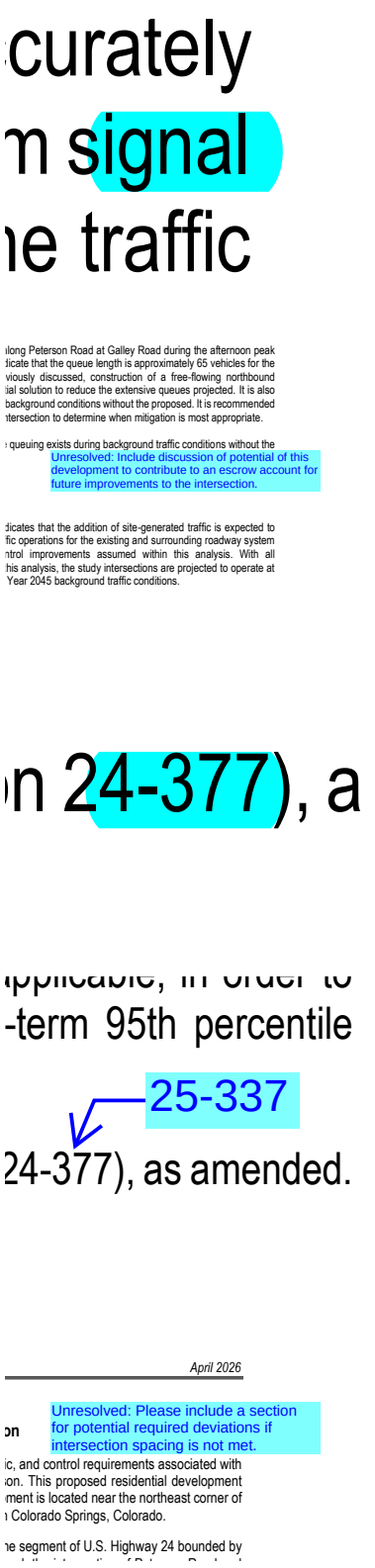
Subject: Engineer
Page Label: V2 (Rezone) - TIS 44
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 2:46:12 PM
Status:
Color:
Layer:
Space:

these signals will be converted to roundabouts with the ongoing CDOT project. please update the TIS with that information.



Subject: Engineer
Page Label: V2 (Rezone) - TIS 44
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 2:46:16 PM
Status:
Color:
Layer:
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control



Subject: Engineer
Page Label: V2 (Rezone) - TIS 44
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 2:46:18 PM
Status:
Color:
Layer:
Space:

ignal

Subject: Engineer
Page Label: V2 (Rezone) - TIS 48
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 4:20:46 PM
Status:
Color:
Layer:
Space:

Unresolved: Include discussion of potential of this development to contribute to an escrow account for future improvements to the intersection.

Subject: Engineer
Page Label: V2 (Rezone) - TIS 49
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 3:31:48 PM
Status:
Color:
Layer:
Space:

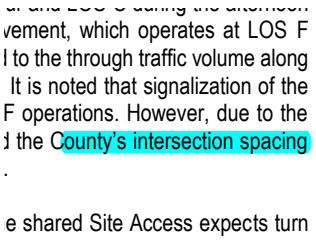
4-377

Subject: Engineer
Page Label: V2 (Rezone) - TIS 49
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 3:32:05 PM
Status:
Color:
Layer:
Space:

25-337

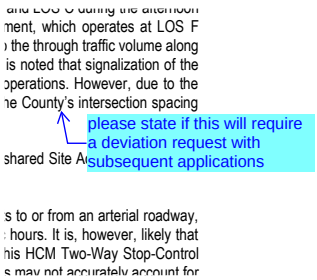
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Page Label: V2 (Rezone) - TIS 49
Author: Bret Dilts - DPW Engineering
Date: 4/30/2026 4:20:22 PM
Status:
Color:
Layer:
Space:

Unresolved: Please include a section for potential required deviations if intersection spacing is not met.



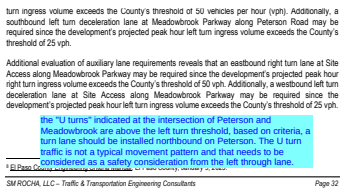
Subject: Engineer
Page Label: V2 (Rezone) - TIS 27
Author: Bret Dilts - DPW Engineering
Date: 5/4/2026 11:38:21 AM
Status:
Color:
Layer:
Space:

ounty's intersection spacing



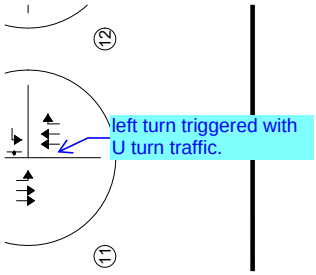
Subject: Engineer
Page Label: V2 (Rezone) - TIS 27
Author: Bret Dilts - DPW Engineering
Date: 5/4/2026 11:39:08 AM
Status:
Color:
Layer:
Space:

please state if this will require a deviation request with subsequent applications



Subject: Engineer
Page Label: V2 (Rezone) - TIS 32
Author: Bret Dilts - DPW Engineering
Date: 5/4/2026 1:22:28 PM
Status:
Color:
Layer:
Space:

the "U turns" indicated at the intersection of Peterson and Meadowbrook are above the left turn threshold, based on criteria, a turn lane should be installed northbound on Peterson. The U turn traffic is not a typical movement pattern and that needs to be considered as a safety consideration from the left through lane.



Subject: Engineer
Page Label: V2 (Rezone) - TIS 36
Author: Bret Dilts - DPW Engineering
Date: 5/4/2026 1:18:49 PM
Status:
Color:
Layer:
Space:

left turn triggered with U turn traffic.

Please be sure to address any CDOT comments on this project.

Subject: Engineer
Page Label: V2 (Rezone) - TIS 1
Author: dotdilts
Date: 5/5/2026 9:59:56 AM
Status:
Color:
Layer:
Space:

Please be sure to address any CDOT comments on this project.

Traffic

A Traffi

PPR2613 as

indicat

..

Subject: Engineer
Page Label: Document1 Letter of Intent 4
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 10:37:42 AM
Status:
Color:
Layer:
Space:

PPR2613

Please include a section for the Road Impact Fee program. The fee will be assessed under the Multi Family Land use. The fee is $2,585/unit

Subject: Engineer
Page Label: Document1 Letter of Intent 1
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 10:46:30 AM
Status:
Color:
Layer:
Space:

Please include a section for the Road Impact Fee program. The fee will be assessed under the Multi Family Land use. The fee is $2,585/unit

---



tion:

abide by the rules and regulations of the Road Impact Fee program as adopted by the ioners. I acknowledge that it is my responsibility as the owner/developer to pay Road Impa Approval.

*: $ Multi Family: $2,585/dwelling unit x 300 units = $775,500

☐ **At Building Permit** (Fees finalized at building permit application)

☐ **Approval of Current Application**

subject to change based on the current Road Impact Fee Schedule at the time of last land use approval

r(s) Name: _____

r(s) Signature: _____ Date: _____

Subject: Engineer
Page Label: Document1 Road Impact Fee Acknowledgement
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 10:53:20 AM
Status:
Color:
Layer:
Space:

Multi Family: $2,585/dwelling unit x 300 units = $775,500



1975 R
Colorac
Main 7
HRGRI

HRGreen.
DEVELOPMENT

CHURCH AT BENT GRASS MEADOWS: FINAL PLAT

LETTER OF INTENT, PPR____

April 20, 2026

OWNER/DEVELOPER:
Hillpointe, LLC.
3773 Cherry Creek Drive North
Denver, CO 80209
MFoster@hillpointe.com

CONSULTANT:

Subject: Engineer
Page Label: Document1 Letter of Intent 1
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 10:50:56 AM
Status:
Color:
Layer:
Space:

CHURCH AT BENT GRASS MEADOWS: FINAL PLAT



Colorado Springs, CO 80920
Main 719.300.4140 + **Fax** 713.965.00

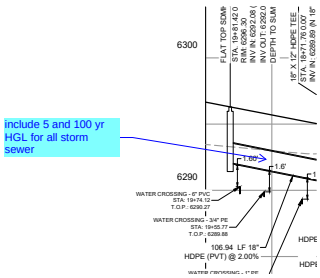
HRGREEN.COM

PLAT

Hillpointe Apartments SDP

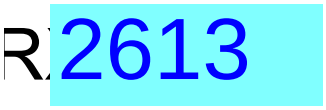
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Page Label: Document1 Letter of Intent 1
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 10:51:31 AM
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Hillpointe Apartments SDP



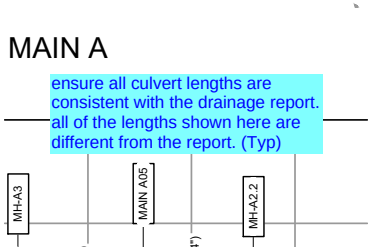
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Page Label: Document1 Construction Drawings (Plans-Profiles) [2] 02 STORM PLAN & PROFILE I
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 10:56:37 AM
Status:
Color:
Layer:
Space:

include 5 and 100 yr HGL for all storm sewer



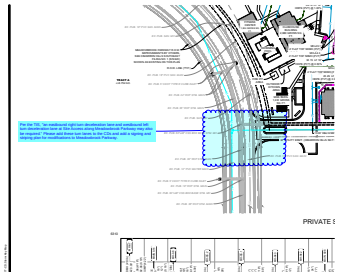
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Page Label: Document1 Drainage Report - Final 1
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 11:04:09 AM
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2613



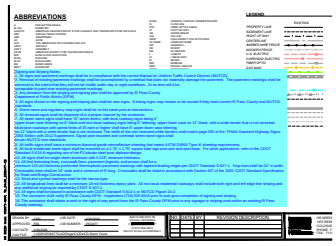
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Page Label: Document1 Construction Drawings (Plans-Profiles) [2] 02 STORM PLAN & PROFILE I
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 12:44:34 PM
Status:
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Layer:
Space:

ensure all culvert lengths are consistent with the drainage report. all of the lengths shown here are different from the report. (Typ)



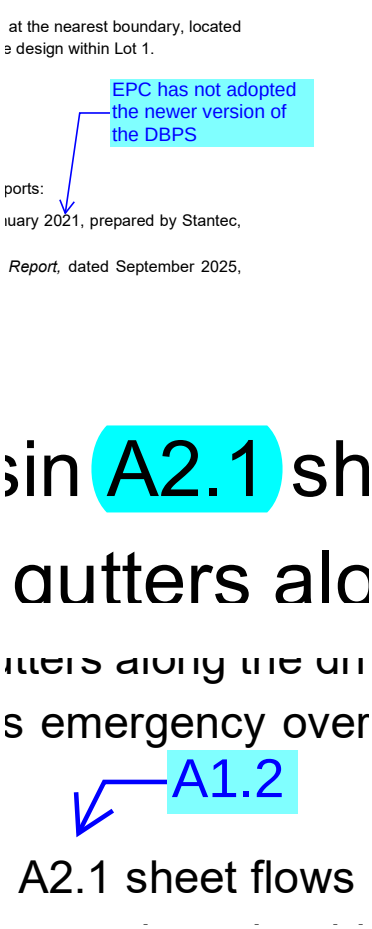
Subject: Engineer
Page Label: Document1 Construction Drawings (Plans-Profiles) [2] 02 STORM PLAN & PROFILE I
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 12:53:38 PM
Status:
Color:
Layer:
Space:

Per the TIS, "an eastbound right turn deceleration lane and westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may also be required." Please add these turn lanes to the CDs and add a signing and striping plan for modifications to Meadowbrook Parkway.



Subject: Engineer
Page Label: Document1 Construction Drawings (Plans-Profiles) [1] 01 STORM COVER & NOTES
Author: Bret Dilts - DPW Engineering
Date: 5/13/2026 1:07:46 PM
Status:
Color:
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Space:

Signing and Striping Notes:
1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
2. Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
3. Any deviation from the striping and signing plan shall be approved by El Paso County Department of Public Works (DPW).
4. All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County and MUTCD standards.
5. Street name and regulatory stop signs shall be on the same post at intersections.
6. All removed signs shall be disposed of in a proper manner by the contractor.
7. All street name signs shall have “D” series letters, with local roadway signs being 4” upper-lower case lettering on 8” blank and non-local roadway signs being 6” lettering, upper-lower case on 12” blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 35 mph or higher shall have 8” upper-lower case lettering
on 12” blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the FHWA Standard Highway Signs: 2004 Edition with 2012 Supplement. Signal pole mounted and overhead street name signs shall
be per MUTCD size standards.
8. All traffic signs shall have a minimum diamond grade retroreflective sheeting that meets ASTM D4956 Type XI sheeting requirements.
9. All local residential street signs shall be mounted on a 1.75” x 1.75” square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
10. All signs shall be single sheet aluminum with 0.125”



Subject: Engineer
Page Label: Document1 Drainage Report - Final 6
Author: Bret Dilts - DPW Engineering
Date: 5/14/2026 2:12:32 PM
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Color:
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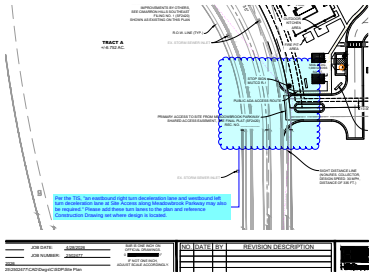
EPC has not adopted the newer version of the DBPS

Subject: Engineer
Page Label: Document1 Drainage Report - Final 8
Author: Bret Dilts - DPW Engineering
Date: 5/14/2026 2:48:56 PM
Status:
Color:
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A2.1

Subject: Engineer
Page Label: Document1 Drainage Report - Final 8
Author: Bret Dilts - DPW Engineering
Date: 5/14/2026 2:49:11 PM
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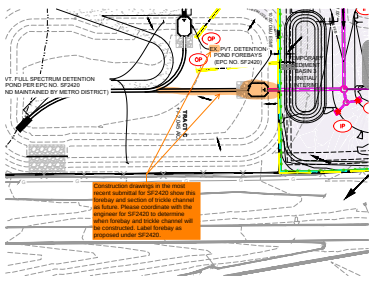
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Subject: Engineer
Page Label: Document1 Site Development Plan [2] 2 SITE PLAN
Author: CDurham
Date: 5/18/2026 5:36:56 PM
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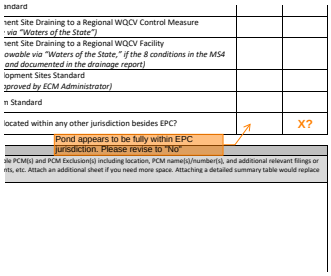
Per the TIS, "an eastbound right turn deceleration lane and westbound left turn deceleration lane at Site Access along Meadowbrook Parkway may also be required." Please add these turn lanes to the plan and reference Construction Drawing set where design is located.

Group (5)



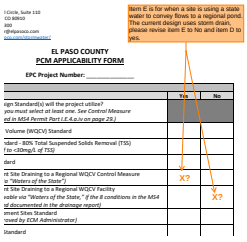
Subject: Group
Page Label: Document1 Grading & Erosion Control (GEC) Plan [5] 5 INTERIM SOUTH
Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:26:08 AM
Status:
Color:
Layer:
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Construction drawings in the most recent submittal for SF2420 show this forebay and section of trickle channel as future. Please coordinate with the engineer for SF2420 to determine when forebay and trickle channel will be constructed. Label forebay as proposed under SF2420.



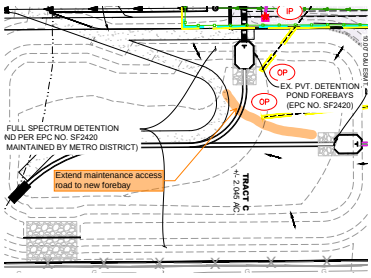
Subject: Group
Page Label: Document1 PCM Applicability Form 3
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:30:50 PM
Status:
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Pond appears to be fully within EPC jurisdiction. Please revise to "No"

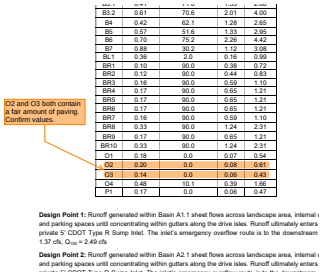


Subject: Group
Page Label: Document1 PCM Applicability Form 3
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:30:43 PM
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Item E is for when a site is using a state water to convey flows to a regional pond. The current design uses storm drain, please revise item E to No and item D to yes.



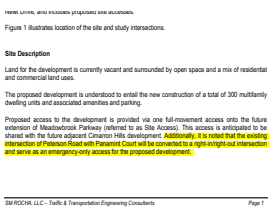
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Page Label: Document1 Grading & Erosion Control (GEC) Plan [5] 5 INTERIM SOUTH
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:51:07 PM
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Subject: Group
Page Label: Document1 Drainage Report - Final 8
Author: EPC Stormwater- Zachary
Date: 5/18/2026 4:21:32 PM
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O2 and O3 both contain a fair amount of paving. Confirm values.

Highlight (29)



Subject: Highlight
Page Label: V2 (Rezone) - TIS 1
Author: dotbarnhart
Date: 5/5/2026 6:30:49 AM
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Additionally, it is noted that the existing
intersection of Peterson Road with Panamint Court will be converted to a right-in/right-out intersection
and serve as an emergency-only access for the proposed development.

a posted speed limit of

outh minor arterial roac
mbination of shared ar
son Road provides a p

eterson Road provides

west minor arterial roac
ection with a shared c
he intersection within tl

assumed to provide a sp

-west major collector roa
ombination of shared ar
Meadow Brook Parkway

-

600'

405'

600'

405'

-

Subject: Highlight
Page Label: V2 (Rezone) - TIS 5
Author: dotbarnhart
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minor arterial

Subject: Highlight
Page Label: V2 (Rezone) - TIS 5
Author: dotbarnhart
Date: 5/5/2026 6:40:15 AM
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minor arterial

Subject: Highlight
Page Label: V2 (Rezone) - TIS 6
Author: dotbarnhart
Date: 5/5/2026 6:42:20 AM
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Subject: Highlight
Page Label: V2 (Rezone) - TIS 46
Author: dotbarnhart
Date: 5/5/2026 7:12:07 AM
Status:
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600'

Subject: Highlight
Page Label: V2 (Rezone) - TIS 46
Author: dotbarnhart
Date: 5/5/2026 7:12:11 AM
Status:
Color:
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405'

ltifamily development which
: is accessed from Meadowb
ture development tracts tha
ot 1, is approved granting a
mily apartment developme
ls such as the Super 8 by W
no Lodge hotel located to the

Subject: Highlight
Page Label: Document1 Letter of Intent 2
Author: CDurham
Date: 5/18/2026 10:06:05 AM
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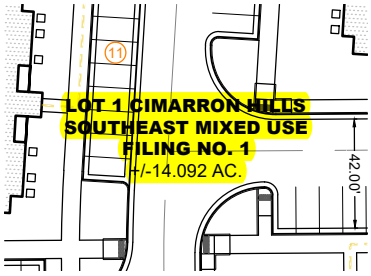
is approved granti

Drainage:

A Final Drainage R
(PPR 26_____) appl
provided by the exi
and approved with

Subject: Highlight
Page Label: Document1 Letter of Intent 6
Author: CDurham
Date: 5/18/2026 11:26:47 AM
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PPR 26_____)



Subject: Highlight
Page Label: Document1 Site Development Plan [2] 2 SITE PLAN
Author: CDurham
Date: 5/18/2026 5:03:38 PM
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LOT 1 CIMARRON HILLS
SOUTHEAST MIXED USE
FILING NO. 1
+/-14.092 AC.

or (100-year event) runo
le area draining to the anal
ide ditch and the existing p
o. 1 (**Design Point 5**) and
ass, shrubs, and trees. Rur
the roadside ditch north of

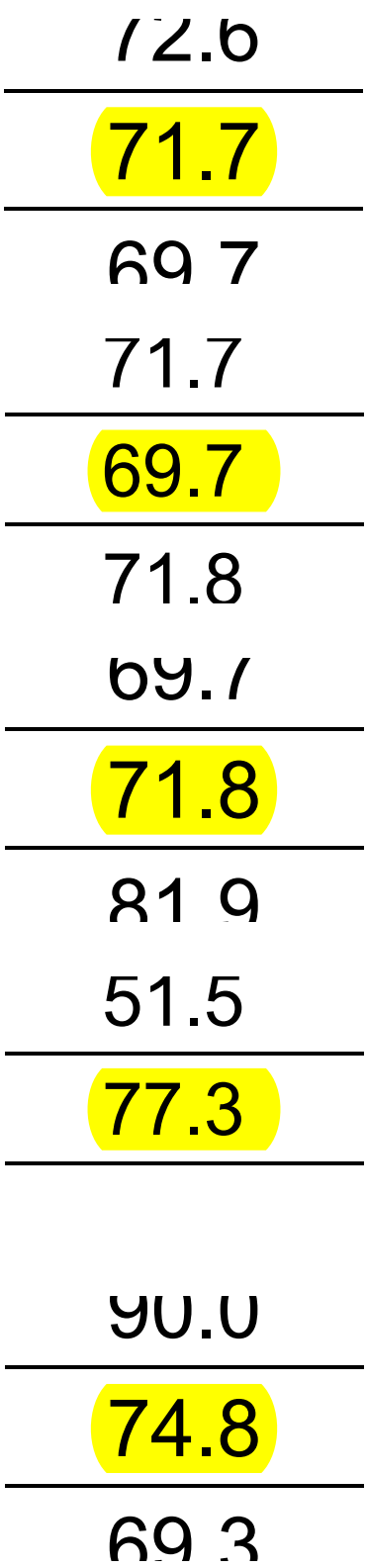
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Design Point 5)

3. The basin is located
section of the ditch. The b
ectrum detention pond wi
rt at **Design Point 4**. The
e basin flows from east to
ghway 24 offramp to Pete

Subject: Highlight
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Author: CDurham
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Design Point 4



Subject: Highlight
Page Label: Document1 Drainage Report - Final 7
Author: CDurham
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71.7

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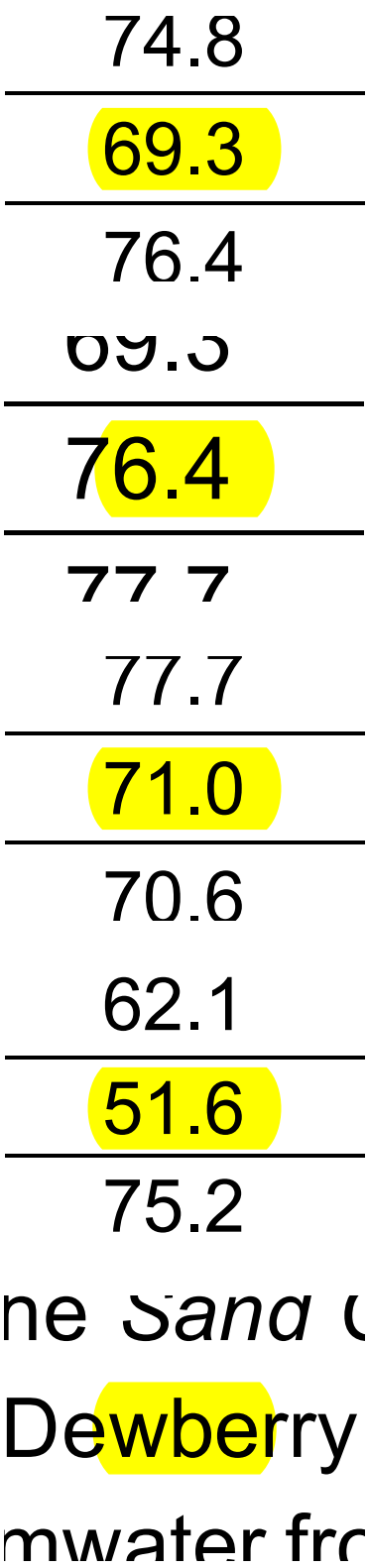
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77.3

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74.8



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69.3

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6.4

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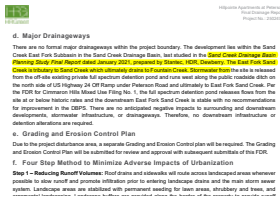
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51.6

Subject: Highlight
Page Label: Document1 Drainage Report - Final 13
Author: CDurham
Date: 5/19/2026 10:56:57 AM
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wbe



d. Major Drainageways

There are no formal major drainageways within the project boundary. The development lies within the Sand Creek East Fork Subbasin in the Sand Creek Drainage Basin, last studied in the Sand Creek Drainage Basin Planning Study Final Report dated January 2021, prepared by Stantec, HDR, Dewberry. The East Fork Sand Creek is tributary to Sand Creek which ultimately drains to Fountain Creek. Stormwater from the site is released from the off-site existing private full spectrum detention pond and runs west along the public roadside ditch on the north side of US Highway 24 Off Ramp under Peterson Road and ultimately to East Fork Sand Creek. Per the FDR for Cimmaron Hills Mixed Use Filing No. 1, the full spectrum detention pond releases flows from the site at or below historic rates and the downstream East Fork Sand Creek is stable with no recommendations for improvement in the DBPS. There are no anticipated negative impacts to surrounding and downstream developments, stormwater infrastructure, or drainageways. Therefore, no downstream infrastructure or detention alterations are required.

e. Grading and Erosion Control Plan

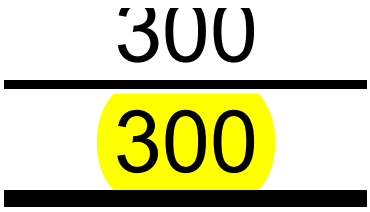
Due to the project disturbance area, a separate Grading and Erosion Control plan will be required. The Grading and Erosion Control Plan will be submitted for review and approval with subsequent submittals of this FDR.

f. Four Step Method to Minimize Adverse Impacts of Urbanization

Step 1 – Reducing Runoff Volumes: Roof drains and sidewalks will route across landscaped areas wherever possible to slow runoff and promote infiltration prior to entering landscape drains and the main storm sewer system. Landscape areas are stabilized with permanent seeding for lawn areas, shrubbery and trees, and

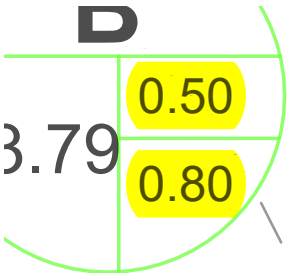
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Page Label: Document1 Drainage Report - Final 13
Author: CDurham
Date: 5/19/2026 10:57:00 AM
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Sand Creek Drainage Basin Planning Study Final Report dated January 2021, prepared by Stantec, HDR, Dewberry. The East Fork Sand
Creek is tributary to Sand Creek which ultimately drains to Fountain Creek. Stormwater from



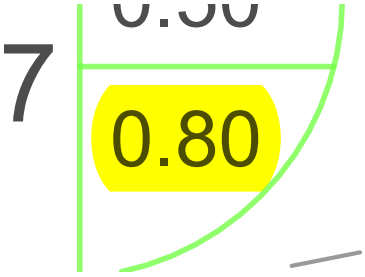
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300



Subject: Highlight
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0.80



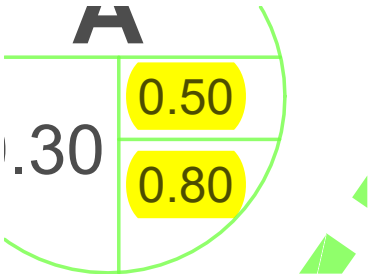
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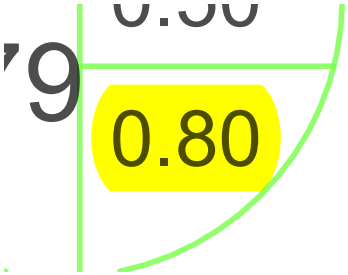
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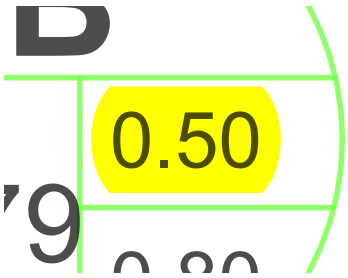
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Subject: Highlight
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Author: CDurham
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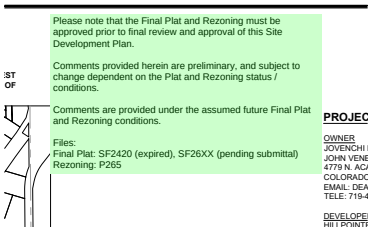
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Subject: Highlight
Page Label: Document1 Drainage Report - Final 43
Author: CDurham
Date: 5/19/2026 11:20:34 AM
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Planner (10)



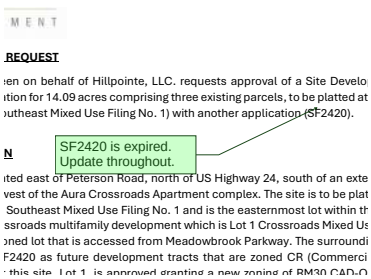
Subject: Planner
Page Label: Document1 Site Development Plan [1] 1 COVER
Author: Juhler
Date: 5/18/2026 9:05:55 AM
Status:
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Please note that the Final Plat and Rezoning must be approved prior to final review and approval of this Site Development Plan.

Comments provided herein are preliminary, and subject to change dependent on the Plat and Rezoning status / conditions.

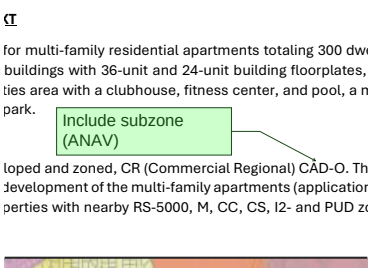
Comments are provided under the assumed future Final Plat and Rezoning conditions.

Files:
Final Plat: SF2420 (expired), SF26XX (pending submittal)
Rezoning: P265



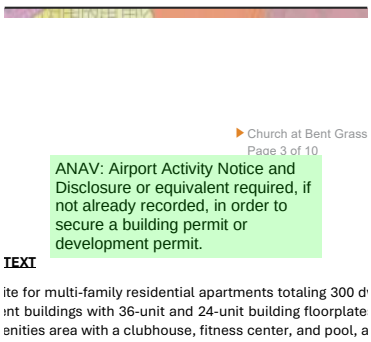
Subject: Planner
Page Label: Document1 Letter of Intent 2
Author: Juhler
Date: 5/18/2026 9:14:15 AM
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SF2420 is expired. Update throughout.



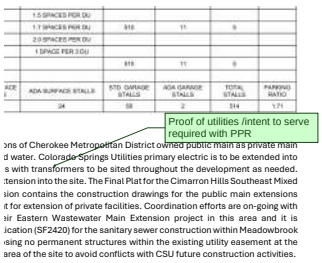
Subject: Planner
Page Label: Document1 Letter of Intent 3
Author: Juhler
Date: 5/18/2026 9:18:57 AM
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Include subzone (ANAV)



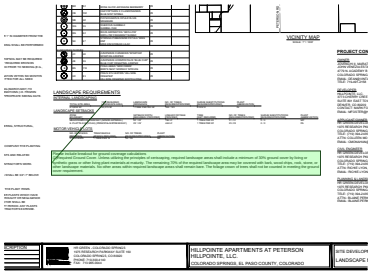
Subject: Planner
Page Label: Document1 Letter of Intent 3
Author: Juhler
Date: 5/18/2026 9:24:21 AM
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ANAV: Airport Activity Notice and Disclosure or equivalent required, if not already recorded, in order to secure a building permit or development permit.



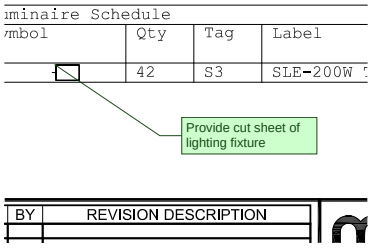
Subject: Planner
Page Label: Document1 Letter of Intent 5
Author: Juhler
Date: 5/18/2026 10:00:05 AM
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Proof of utilities /intent to serve required with PPR



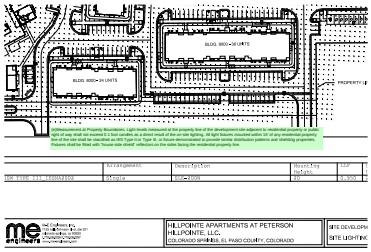
Subject: Planner
Page Label: Document1 Landscape Plan drawings [1] 1 LANDSCAPE NOTES & SCHEDULE
Author: Juhler
Date: 5/18/2026 10:21:18 AM
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Please include breakout for ground coverage calculations (2)Required Ground Cover. Unless utilizing the principles of xeriscaping, required landscape areas shall include a minimum of 30% ground cover by living or synthetic grass or other living plant materials at maturity. The remaining 70% of the required landscape area may be covered with bark, wood chips, rock, stone, or other landscape materials. No other areas within required landscape areas shall remain bare. The foliage crown of trees shall not be counted in meeting the ground cover requirement.



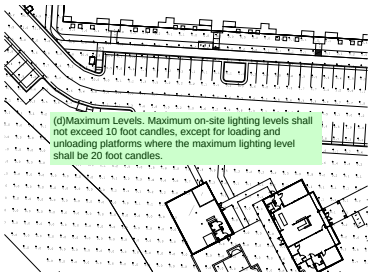
Subject: Planner
Page Label: Document1 Lighting Plan
Author: Juhler
Date: 5/18/2026 10:28:06 AM
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Provide cut sheet of lighting fixture



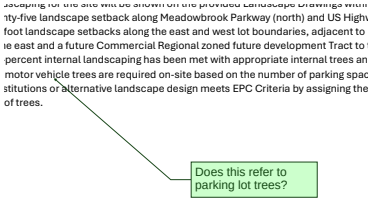
Subject: Planner
Page Label: Document1 Lighting Plan
Author: Juhler
Date: 5/18/2026 10:29:49 AM
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(e)Measurement at Property Boundaries. Light levels measured at the property line of the development site adjacent to residential property or public right of way shall not exceed 0.1 foot candles as a direct result of the on-site lighting. All light fixtures mounted within 15' of any residential property line of the site shall be classified as IES Type II or Type III, or fixture demonstrated to provide similar distribution patterns and shielding properties. Fixtures shall be fitted with "house side shield" reflectors on the sides facing the residential property line.



Subject: Planner
Page Label: Document1 Lighting Plan
Author: Juhler
Date: 5/18/2026 10:35:16 AM
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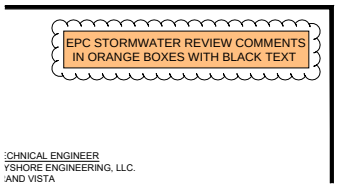
(d)Maximum Levels. Maximum on-site lighting levels shall not exceed 10 foot candles, except for loading and unloading platforms where the maximum lighting level shall be 20 foot candles.



Subject: Planner
Page Label: Document1 Letter of Intent 6
Author: Juhler
Date: 5/18/2026 1:55:45 PM
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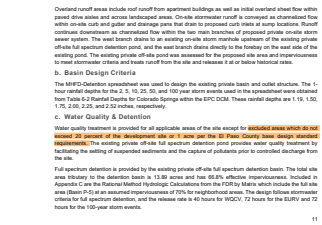
Does this refer to parking lot trees?

Stamp - Stormwater Comment Legend (1)



Subject: Stamp - Stormwater Comment Legend
Page Label: Document1 Construction Drawings (Plans-Profiles) [1] 01 STORM COVER & NOTES
Author: EPC Stormwater- Zachary
Date: 5/18/2026 4:55:37 PM
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SW - Highlight (10)


Overland runoff areas include roof runoff from apartment buildings as well as initial overland sheet flow within paved drive aisles and across landscaped areas. On-site stormwater runoff is conveyed as channelized flow within on-site curb and gutter and drainage pans that drain to proposed curb inlets at sump locations. Runoff continues downstream as channelized flow within the two main branches of proposed private on-site storm sewer system. The west branch drains to an existing on-site storm manhole upstream of the existing private off-site full spectrum detention pond, and the east branch drains directly to the fireday on the east side of the existing pond. The existing private off-site pond was assessed for the proposed site area and imperviousness to meet stormwater criteria and treats runoff from the site and releases it at or below historical rates.

b. Basin Design Criteria

The MHFD-Detention spreadsheet was used to design the existing private basin and outlet structure. The 1-hour rainfall depths for the 2, 5, 10, 25, 50, and 100 year storm events used in the spreadsheet were obtained from Table 6-2 Rainfall Depths for Colorado Springs within the EPC DCM. These rainfall depths are 1.19, 1.50, 1.75, 2.00, 2.25, and 2.52 inches, respectively.

c. Water Quality & Detention

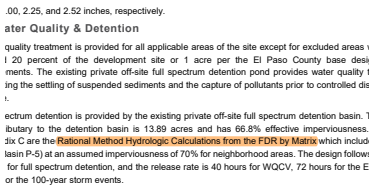
Water quality treatment is provided for all applicable areas of the site except for excluded areas which do not exceed 20 percent of the development site or 1 acre per the El Paso County base design standard requirements. The existing private off-site full spectrum detention pond provides water quality treatment by facilitating the settling of suspended sediments and the capture of pollutants prior to controlled discharge from the site.

Full spectrum detention is provided by the existing private off-site full spectrum detention basin. The total site area tributary to the detention basin is 13.89 acres and has 66.8% effective imperviousness. Included in Appendix C are the Rational Method Hydrologic Calculations from the FDR by Matrix which include the full site area (Basin P-5) at an assumed imperviousness of 70% for neighborhood areas. The design follows stormwater criteria for full spectrum detention, and the release rate is 40 hours for WQCV, 72 hours for the EURV and 72 hours for the 100-year storm events.

11

Subject: SW - Highlight
Page Label: Document1 Drainage Report - Final 12
Author: EPC Stormwater- Zachary
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excluded areas which do not exceed 20 percent of the development site or 1 acre per the El Paso County base design standard requirements.


.00, 2.25, and 2.52 inches, respectively.

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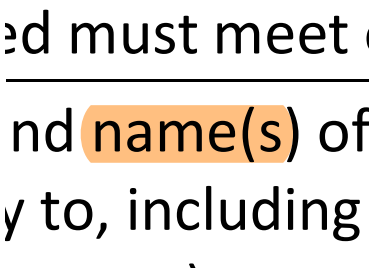
quality treatment is provided for all applicable areas of the site except for excluded areas
l 20 percent of the development site or 1 acre per the El Paso County base desi
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for full spectrum detention, and the release rate is 40 hours for WQCV, 72 hours for the E
or the 100-year storm events.

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Rational Method Hydrologic Calculations from the FDR by Matrix

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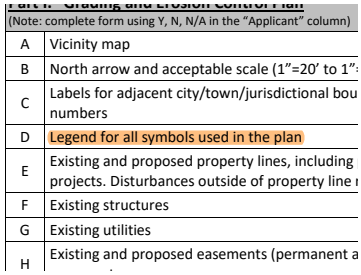

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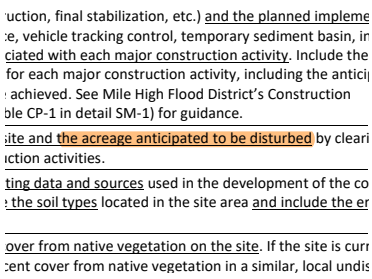
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:26:58 AM
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name(s


(Note: complete form using Y, N, N/A in the "Applicant" column)	
A	Vicinity map
B	North arrow and acceptable scale (1"=20' to 1"
C	Labels for adjacent city/town/jurisdictional bou numbers
D	Legend for all symbols used in the plan
E	Existing and proposed property lines, including projects. Disturbances outside of property line
F	Existing structures
G	Existing utilities
H	Existing and proposed easements (permanent a

Subject: SW - Highlight
Page Label: Document1 Grading & Erosion Control (GEC) Checklist 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:27:10 AM
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Legend for all symbols used in the plan


uction, final stabilization, etc.) and the planned impleme
e, vehicle tracking control, temporary sediment basin, in
ciated with each major construction activity. Include the
for each major construction activity, including the anticip
achieved. See Mile High Flood District's Construction
ble CP-1 in detail SM-1) for guidance.

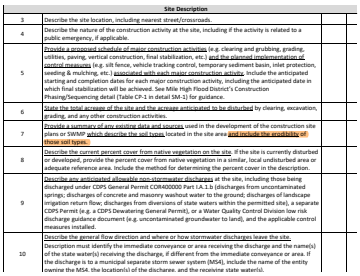
site and the acreage anticipated to be disturbed by cleari
uction activities.

ting data and sources used in the development of the co
the soil types located in the site area and include the er

over from native vegetation on the site. If the site is curr
cent cover from native vegetation in a similar, local undis

Subject: SW - Highlight
Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 1
Author: EPC Stormwater- Zachary
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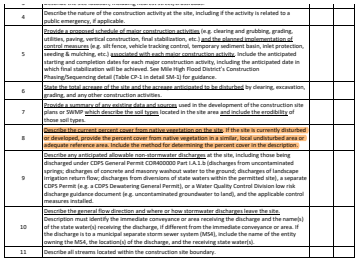
he acreage anticipated to be disturbed



Site Description			
3	Describe the site location, including nearest street/crossroads.		
4	Describe the nature of the construction activity at the site, including if the activity is related to a public emergency, if applicable.		
5	Provide a proposed schedule of major construction activities (e.g. clearing and grubbing, grading, utilities, paving, vertical construction, final stabilization, etc.) and the planned implementation of control measures (e.g. silt fence, vehicle tracking control, temporary sediment basin, inlet protection, seeding & mulching, etc.) associated with each major construction activity. Include the anticipated starting and completion dates for each major construction activity, including the anticipated date in which final stabilization will be achieved. See Mile High Flood District's Construction Phasing/Sequencing detail (Table CP-1 in detail SM-1) for guidance.		
6	State the total acreage of the site and the acreage anticipated to be disturbed by clearing, excavation, grading, and any other construction activities.		
7	Provide a summary of any existing data and sources used in the development of the construction site plans or SWMP which describe the soil types located in the site area and include the erodibility of those soil types.		
8	Describe the current percent cover from native vegetation on the site. If the site is currently disturbed or developed, provide the percent cover from native vegetation in a similar, local undisturbed area or adequate reference area. Include the method for determining the percent cover in the description.		
9	Describe any anticipated allowable non-stormwater discharges at the site, including those being discharged under CDPS General Permit COR400000 Part I.A.1.b (discharges from uncontaminated springs; discharges of concrete and masonry washout water to the ground; discharges of landscape irrigation return flow; discharges from diversions of state waters within the permitted site), a separate CDPS Permit (e.g. a CDPS Dewatering General Permit), or a Water Quality Control Division low risk discharge guidance document (e.g. uncontaminated groundwater to land), and the applicable control measures installed.		
10	Describe the general flow direction and where or how stormwater discharges leave the site. Description must identify the immediate conveyance or area receiving the discharge and the name(s) of the state water(s) receiving the discharge, if different from the immediate conveyance or area. If the discharge is to a municipal separate storm sewer system (MS4), include the name of the entity owning the MS4. the location(s) of the discharge. and the receiving state water(s).		

Subject: SW - Highlight
Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 1
Author: EPC Stormwater- Zachary
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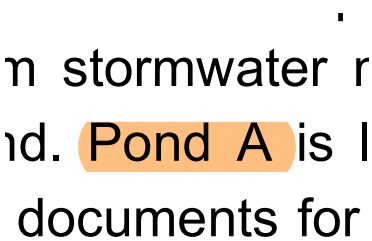
and include the erodibility of those soil types.



4	Describe the nature of the construction activity at the site, including if the activity is related to a public emergency, if applicable.		
5	Provide a proposed schedule of major construction activities (e.g. clearing and grubbing, grading, utilities, paving, vertical construction, final stabilization, etc.) and the planned implementation of control measures (e.g. silt fence, vehicle tracking control, temporary sediment basin, inlet protection, seeding & mulching, etc.) associated with each major construction activity. Include the anticipated starting and completion dates for each major construction activity, including the anticipated date in which final stabilization will be achieved. See Mile High Flood District's Construction Phasing/Sequencing detail (Table CP-1 in detail SM-1) for guidance.		
6	State the total acreage of the site and the acreage anticipated to be disturbed by clearing, excavation, grading, and any other construction activities.		
7	Provide a summary of any existing data and sources used in the development of the construction site plans or SWMP which describe the soil types located in the site area and include the erodibility of those soil types.		
8	Describe the current percent cover from native vegetation on the site. If the site is currently disturbed or developed, provide the percent cover from native vegetation in a similar, local undisturbed area or adequate reference area. Include the method for determining the percent cover in the description.		
9	Describe any anticipated allowable non-stormwater discharges at the site, including those being discharged under CDPS General Permit COR400000 Part I.A.1.b (discharges from uncontaminated springs; discharges of concrete and masonry washout water to the ground; discharges of landscape irrigation return flow; discharges from diversions of state waters within the permitted site), a separate CDPS Permit (e.g. a CDPS Dewatering General Permit), or a Water Quality Control Division low risk discharge guidance document (e.g. uncontaminated groundwater to land), and the applicable control measures installed.		
10	Describe the general flow direction and where or how stormwater discharges leave the site. Description must identify the immediate conveyance or area receiving the discharge and the name(s) of the state water(s) receiving the discharge, if different from the immediate conveyance or area. If the discharge is to a municipal separate storm sewer system (MS4), include the name of the entity owning the MS4, the location(s) of the discharge, and the receiving state water(s).		
11	Describe all streams located within the construction site boundary.		

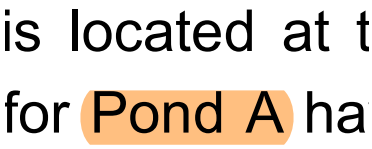
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Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:04:12 AM
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Describe the current percent cover from native vegetation on the site. If the site is currently disturbed
or developed, provide the percent cover from native vegetation in a similar, local undisturbed area or adequate reference area. Include the method for determining the percent cover in the description.



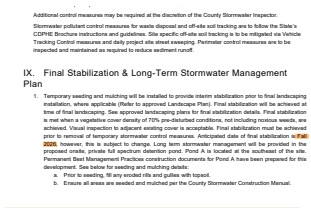
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:23:43 AM
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Pond A



Subject: SW - Highlight
Page Label: Document1 Storm Water Management Plan (SWMP) 14
Author: EPC Stormwater- Zachary
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Pond A



Additional control measures may be required at the discretion of the County Stormwater Inspector.

Stormwater pollutant control measures for waste disposal and off-site soil tracking are to follow the State's COPHE Brochure instructions and guidelines. Site specific off-site soil tracking is to be mitigated via Vehicle Tracking Control measures and daily project site street sweeping. Perimeter control measures are to be inspected and maintained as required to reduce sediment runoff.

IX. Final Stabilization & Long-Term Stormwater Management Plan

1. Temporary seeding and mulching will be installed to provide interim stabilization prior to final landscaping installation, where applicable (Refer to approved Landscape Plan). Final stabilization will be achieved at time of final landscaping. See approved landscaping plans for final stabilization details. Final stabilization is met when a vegetative cover density of 70% pre-disturbed conditions, not including noxious weeds, are achieved. Visual inspection to adjacent existing cover is acceptable. Final stabilization must be achieved prior to removal of temporary stormwater control measures. Anticipated date of final stabilization is Fall 2026, however, this is subject to change. Long term stormwater management will be provided in the proposed swales, private full spectrum detention pond. Pond A is located at the southeast of the site. Permanent Best Management Practices construction documents for Pond A have been prepared for this development. See below for seeding and mulching details:
   a. Prior to seeding, fill any eroded rills and gullies with topsoil.
   b. Ensure all areas are seeded and mulched per the County Stormwater Construction Manual.

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Page Label: Document1 Storm Water Management Plan (SWMP) 14
Author: EPC Stormwater- Zachary
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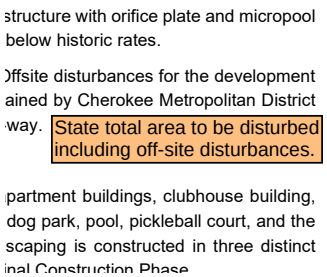
Fall 2026

SW - Textbox (18)



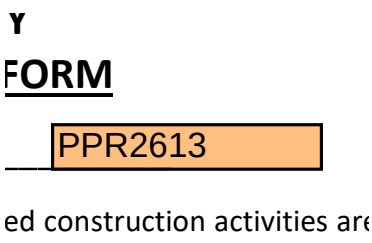
Subject: SW - Textbox
Page Label: Document1 Erosion and Stormwater Quality Control Permit (ESQCP) 1
Author: EPC Stormwater- Zachary
Date: 5/18/2026 2:40:25 PM
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Subject: SW - Textbox
Page Label: Document1 Storm Water Management Plan (SWMP) 6
Author: EPC Stormwater- Zachary
Date: 5/18/2026 2:44:09 PM
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State total area to be disturbed including off-site disturbances.



Subject: SW - Textbox
Page Label: Document1 PCM Applicability Form 1
Author: EPC Stormwater- Zachary
Date: 5/18/2026 2:49:04 PM
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Subject: SW - Textbox
Page Label: Document1 PCM Applicability Form 4
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:31:14 PM
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Stamp and date



Subject: SW - Textbox
Page Label: Document1 Financial Assurance Estimate (FAE) Form 1
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:42:10 PM
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[STORMCAD ANALYSIS]

Include MHFD Detention calculations for the final condition of this project (will an updated orifice plate be required?). Also provide forebay and trickle channel calcs.

Subject: SW - Textbox
Page Label: Document1 Drainage Report - Final 40
Author: EPC Stormwater- Zachary
Date: 5/19/2026 7:42:49 AM
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Include MHFD Detention calculations for the final condition of this project (will an updated orifice plate be required?). Also provide forebay and trickle channel calcs.

Since the pond will be constructed under another project, add the following condition of approval:

Construction of any impervious surfaces (roadways, sidewalks, etc.) within the Hillpointe Apartments Site Development Plan shall not begin until Pond 1 and accompanying stormwater infrastructure required to direct flows from Hillpointe Apartments Site Development Plan to Pond 1 are substantially completed under CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1. (SF2420) These areas require treatment from Pond 1.

TERSON
COLORADO

CONSTRUCTION DRAWINGS
STORM COVER & NOTES

Subject: SW - Textbox
Page Label: Document1 Construction Drawings (Plans-Profiles) [1] 01 STORM COVER & NOTES
Author: EPC Stormwater- Zachary
Date: 5/18/2026 4:58:47 PM
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Since the pond will be constructed under another project, add the following condition of approval:

Construction of any impervious surfaces (roadways, sidewalks, etc.) within the Hillpointe Apartments Site Development Plan shall not begin until Pond 1 and accompanying stormwater infrastructure required to direct flows from Hillpointe Apartments Site Development Plan to Pond 1 are substantially completed under CIMARRON HILLS SOUTHEAST MIXED USE FILING NO. 1. (SF2420) These areas require treatment from Pond 1.

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alks will route across landscaped areas whenever
ing landscape drains and the main storm sewer
eding for lawn areas, shrubbery and trees, and
ong the border of the property to provide runoff

m the site is treated through the capture and slow
pond.

Use pond identifier and provide project number pond is to be constructed under

e is provided below:

mmary Table

turbed Area ded from WQ r ECM App I.7.1.C.1	Disturbed Area Excluded from WQ per ECM App I.7.1.B.7

Subject: SW - Textbox
Page Label: Document1 Drainage Report - Final 13
Author: EPC Stormwater- Zachary
Date: 5/18/2026 5:20:22 PM
Status:
Color:
Layer:
Space:

Use pond identifier and provide project number pond is to be constructed under

---

final plat recording.

Include cost estimate for pond modification. Value should match FAE.

Subject: SW - Textbox
Page Label: Document1 Drainage Report - Final 15
Author: EPC Stormwater- Zachary
Date: 5/18/2026 5:21:36 PM
Status:
Color:
Layer:
Space:

Include cost estimate for pond modification. Value should match FAE.

CONTROL CH

PPR2613

Subject: SW - Textbox
Page Label: Document1 Grading & Erosion Control (GEC) Checklist 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 8:48:47 AM
Status:
Color:
Layer:
Space:

PPR2613

The checklist items are up to date on this form but the standard notes are outdated. The notes on the submitted GEC plan are correct so no revision is needed but I've attached the current GEC Checklist for future use.

CKLIST

Subject: SW - Textbox
Page Label: Document1 Grading & Erosion Control (GEC) Checklist 4
Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:52:22 AM
Status:
Color:
Layer:
Space:

The checklist items are up to date on this form but the standard notes are outdated. The notes on the submitted GEC plan are correct so no revision is needed but I've attached the current GEC Checklist for future use.

No. PPR####

PPR2613

h Pre-Plat Construction)

ete **Remaining**

Subject: SW - Textbox
Page Label: Document1 Financial Assurance Estimate (FAE) Form 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 10:44:33 AM
Status:
Color:
Layer:
Space:

PPR2613

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t No: 2502477

No. PPR-XXX

PPR2613

plicant/Owner):

, LLC.

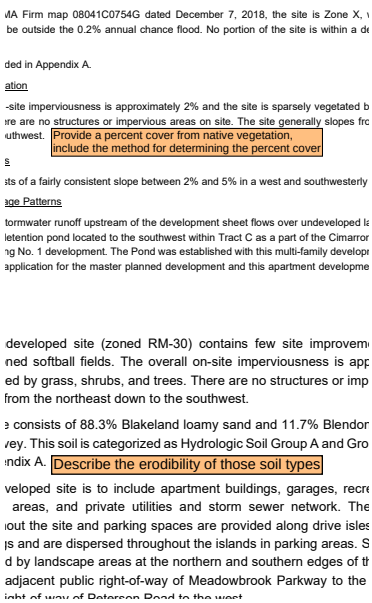
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Page Label: Document1 Storm Water Management Plan (SWMP) 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 10:45:11 AM
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PPR2613

PPR2613

Subject: SW - Textbox
Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 1
Author: EPC Stormwater- Zachary
Date: 5/19/2026 10:47:11 AM
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PPR2613



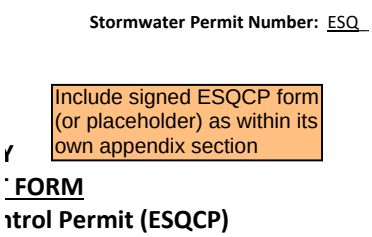
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Page Label: Document1 Storm Water Management Plan (SWMP) 8
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:07:51 AM
Status:
Color:
Layer:
Space:

Provide a percent cover from native vegetation, include the method for determining the percent cover

---

Subject: SW - Textbox
Page Label: Document1 Storm Water Management Plan (SWMP) 5
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:09:49 AM
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Color:
Layer:
Space:

Describe the erodibility of those soil types

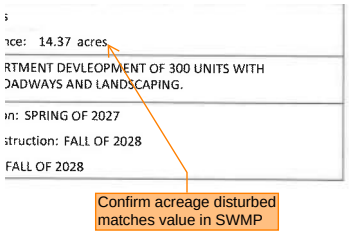


Subject: SW - Textbox
Page Label: Document1 Storm Water Management Plan (SWMP) 44
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:39:37 AM
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Layer:
Space:

Include signed ESQCP form (or placeholder) as within its own appendix section

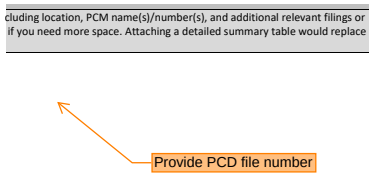
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SW - Textbox with Arrow (12)



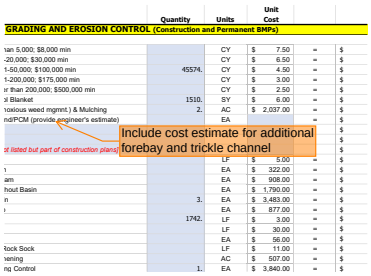
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Page Label: Document1 Erosion and Stormwater Quality Control Permit (ESQCP) 2
Author: EPC Stormwater- Zachary
Date: 5/18/2026 2:49:23 PM
Status:
Color:
Layer:
Space:

Confirm acreage disturbed matches value in SWMP



Subject: SW - Textbox with Arrow
Page Label: Document1 PCM Applicability Form 3
Author: EPC Stormwater- Zachary
Date: 5/18/2026 2:53:00 PM
Status:
Color:
Layer:
Space:

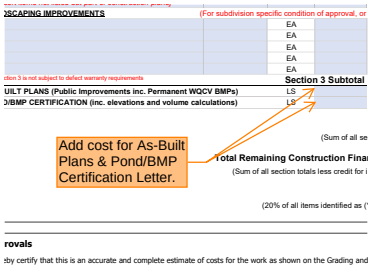
Provide PCD file number



Subject: SW - Textbox with Arrow
Page Label: Document1 Financial Assurance Estimate (FAE) Form 1
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:41:46 PM
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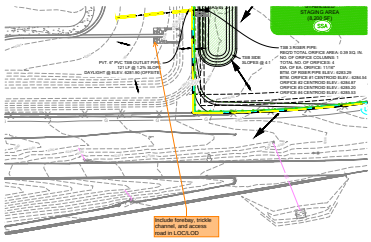
Include cost estimate for additional forebay and trickle channel

---



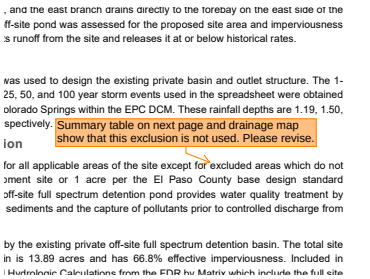
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Page Label: Document1 Financial Assurance Estimate (FAE) Form 3
Author: EPC Stormwater- Zachary
Date: 5/18/2026 3:37:05 PM
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Color:
Layer:
Space:

Add cost for As-Built Plans & Pond/BMP Certification Letter.



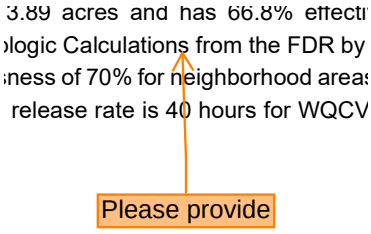
Subject: SW - Textbox with Arrow
Page Label: Document1 Grading & Erosion Control (GEC) Plan [3] 3 INITIAL SOUTH
Author: EPC Stormwater- Zachary
Date: 5/19/2026 8:56:32 AM
Status:
Color:
Layer:
Space:

Include forebay, trickle channel, and access road in LOC/LOD



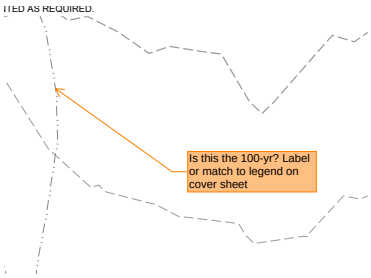
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Page Label: Document1 Drainage Report - Final 12
Author: EPC Stormwater- Zachary
Date: 5/18/2026 4:02:29 PM
Status:
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Space:

Summary table on next page and drainage map show that this exclusion is not used. Please revise.



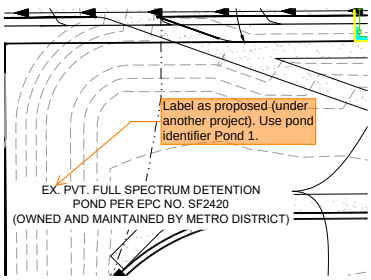
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Page Label: Document1 Drainage Report - Final 12
Author: EPC Stormwater- Zachary
Date: 5/19/2026 8:46:08 AM
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Please provide



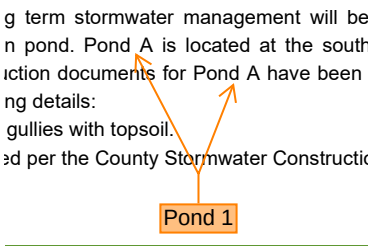
Subject: SW - Textbox with Arrow
Page Label: Document1 Grading & Erosion Control (GEC) Plan [2] 2 INITIAL NORTH
Author: EPC Stormwater- Zachary
Date: 5/19/2026 8:59:09 AM
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Space:

Is this the 100-yr? Label or match to legend on cover sheet



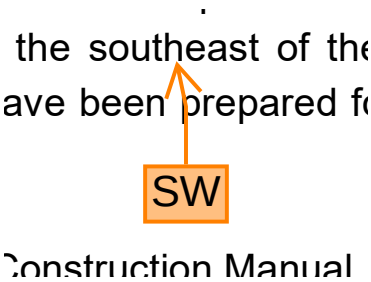
Subject: SW - Textbox with Arrow
Page Label: Document1 Grading & Erosion Control (GEC) Plan [5] 5 INTERIM SOUTH
Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:25:13 AM
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Color:
Layer:
Space:

Label as proposed (under another project). Use pond identifier Pond 1.



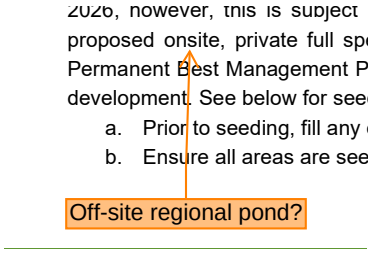
Subject: SW - Textbox with Arrow
Page Label: Document1 Storm Water Management Plan (SWMP) 14
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:23:00 AM
Status:
Color:
Layer:
Space:

Pond 1



Subject: SW - Textbox with Arrow
Page Label: Document1 Storm Water Management Plan (SWMP) 14
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:23:16 AM
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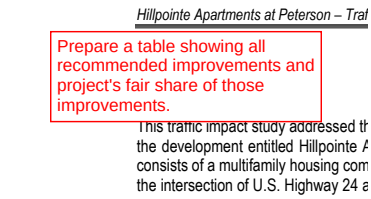
SW



Subject: SW - Textbox with Arrow
Page Label: Document1 Storm Water Management Plan (SWMP) 14
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:23:37 AM
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Space:

Off-site regional pond?

Text Box (82)



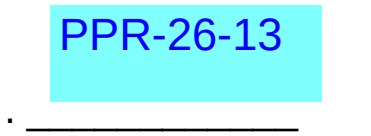
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Page Label: V2 (Rezone) - TIS 49
Author: dotbarnhart
Date: 5/5/2026 7:39:01 AM
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Prepare a table showing all recommended improvements and project's fair share of those improvements.



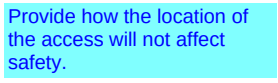
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Page Label: Document1 Letter of Intent 1
Author: CDurham
Date: 5/18/2026 10:02:31 AM
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26-013



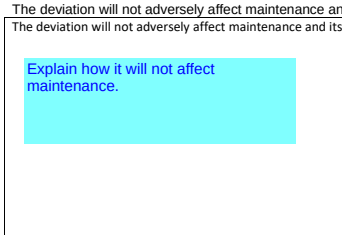
Subject: Text Box
Page Label: Document1 Deviation Request Packet 1
Author: CDurham
Date: 5/18/2026 12:48:55 PM
Status:
Color:
Layer:
Space:

PPR-26-13



Subject: Text Box
Page Label: Document1 Deviation Request Packet 3
Author: CDurham
Date: 5/18/2026 12:53:40 PM
Status:
Color:
Layer:
Space:

Provide how the location of the access will not affect safety.



Subject: Text Box
Page Label: Document1 Deviation Request Packet 4
Author: CDurham
Date: 5/18/2026 12:55:21 PM
Status:
Color:
Layer:
Space:

Explain how it will not affect maintenance.

Deviation Review shall be as de

Provide exhibit showing access location and include sight distances.

Subject: Text Box
Page Label: Document1 Deviation Request Packet 6
Author: CDurham
Date: 5/18/2026 12:56:48 PM
Status:
Color:
Layer:
Space:

Provide exhibit showing access location and include sight distances.

The deviation will not adversely affect a
The deviation will not adversely affect aest
access will not be adversely affected in its a

State how aesthetics will not be affected.

Subject: Text Box
Page Label: Document1 Deviation Request Packet 4
Author: CDurham
Date: 5/18/2026 12:57:22 PM
Status:
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Space:

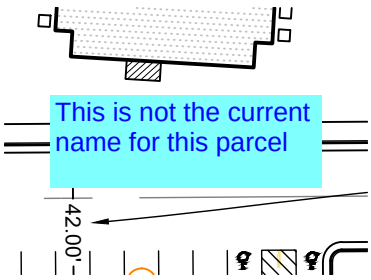
State how aesthetics will not be affected.

Please provide current legal description of parcel, not what it will be after plat.

D. 1

Subject: Text Box
Page Label: Document1 Site Development Plan [1] 1 COVER
Author: CDurham
Date: 5/18/2026 4:58:22 PM
Status:
Color:
Layer:
Space:

Please provide current legal description of parcel, not what it will be after plat.



Subject: Text Box
Page Label: Document1 Site Development Plan [2] 2 SITE PLAN
Author: CDurham
Date: 5/18/2026 5:04:10 PM
Status:
Color:
Layer:
Space:

This is not the current name for this parcel

Include Floodplain Statement, Geologic Hazard and ADA notes

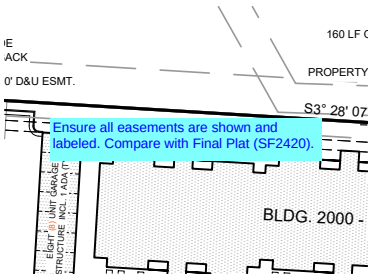
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Page Label: Document1 Site Development Plan [1] 1 COVER
Author: CDurham
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Include Floodplain Statement, Geologic Hazard and ADA notes



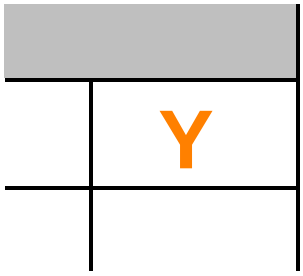
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PPR-26-13



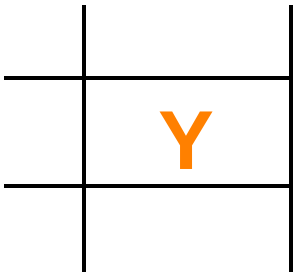
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Page Label: Document1 Site Development Plan [2] 2 SITE PLAN
Author: CDurham
Date: 5/18/2026 5:34:45 PM
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Ensure all easements are shown and labeled. Compare with Final Plat (SF2420).



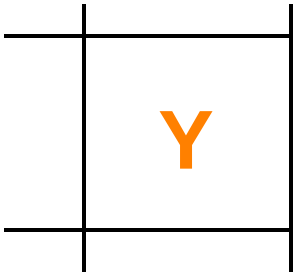
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 8:53:27 AM
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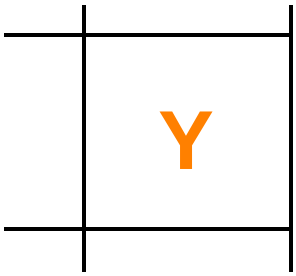
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Author: EPC Stormwater- Zachary
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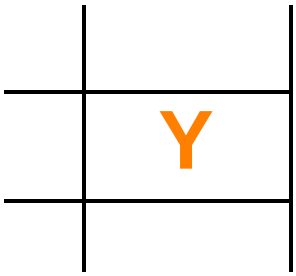
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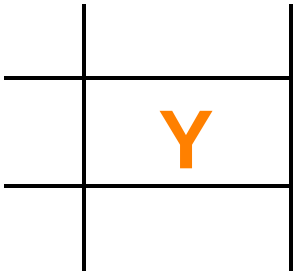
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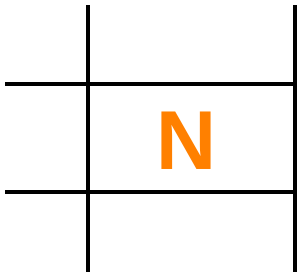
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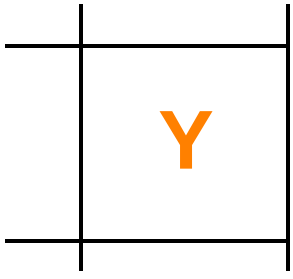
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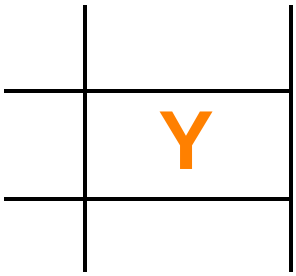
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Subject: Text Box
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Date: 5/19/2026 9:14:27 AM
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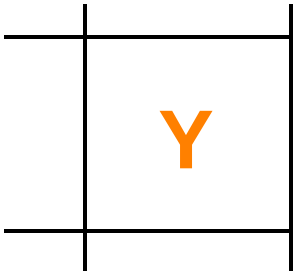
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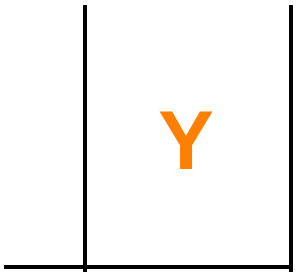
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:14:45 AM
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Layer:
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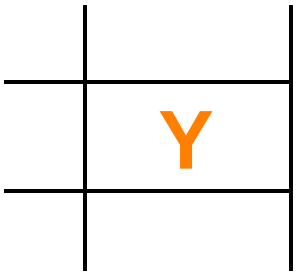
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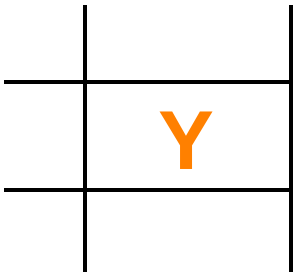
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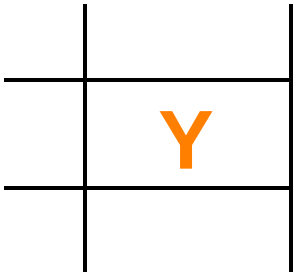
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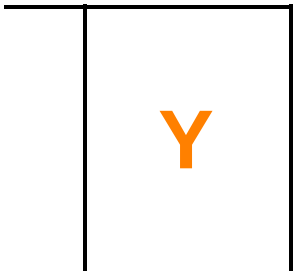
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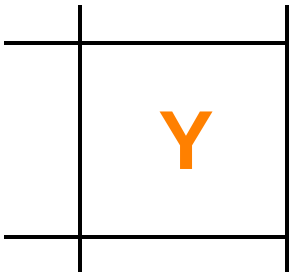
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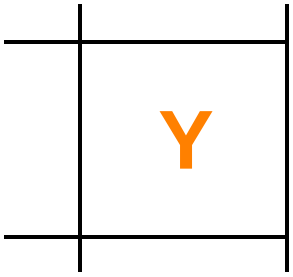
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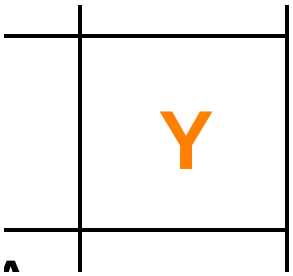
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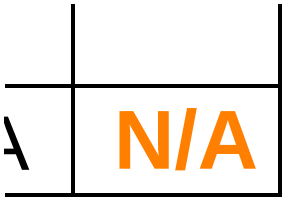
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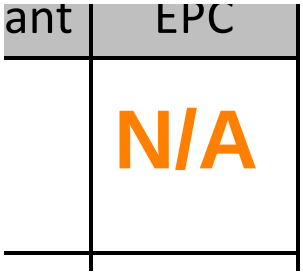
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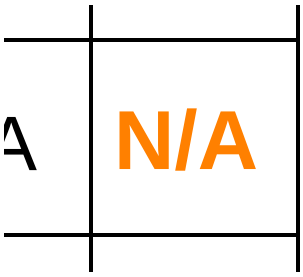
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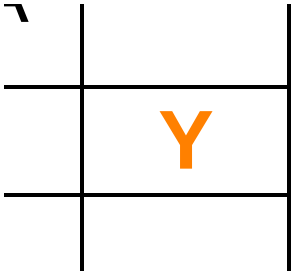
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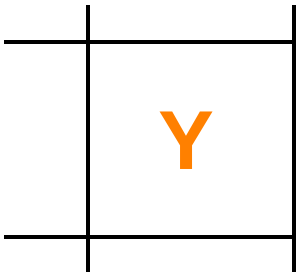
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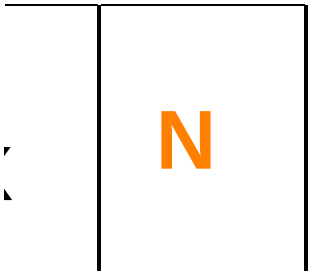
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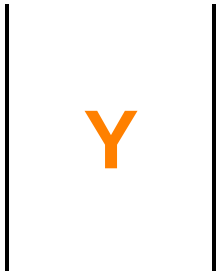
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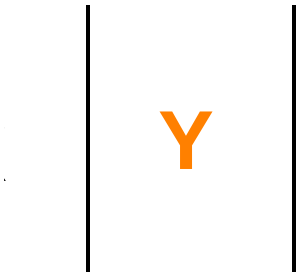
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 9:30:52 AM
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What happens with Basins AR2 thru AR6 and BL1, BR1 thru BR4 and BR6 thru BR7?

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Author: CDurham
Date: 5/19/2026 10:46:20 AM
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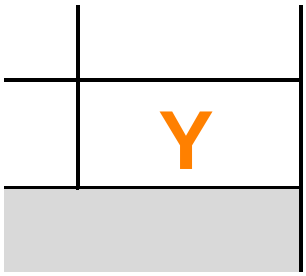
What happens with Basins AR2 thru AR6 and BL1, BR1 thru BR4 and BR6 thru BR7?

d within Basin A2 sheet flows across la

Y

Subject: Text Box
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 10:46:56 AM
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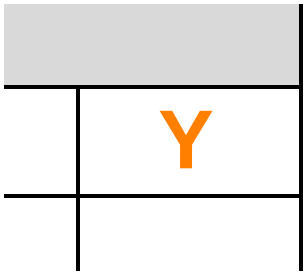
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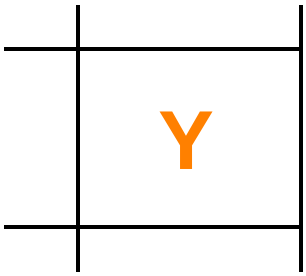
Include discussion on Basins O1 thru O4 & P1.

Include discussion on Basins O1 thru O4 & P1.



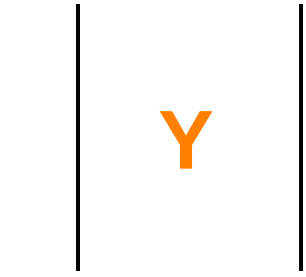
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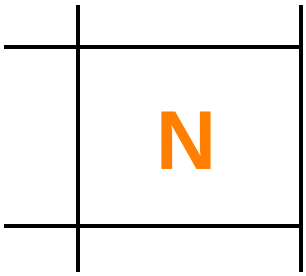
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Author: EPC Stormwater- Zachary
Date: 5/19/2026 10:51:03 AM
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ıls Final Drainage Report presents the amend
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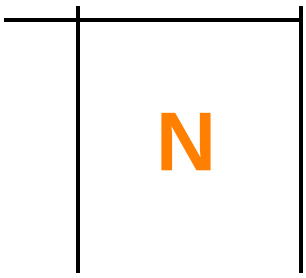
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for thi

County does not do Variances. However, only deviations provided were for road design, so this section can be removed or next page statement can be revised to state that there are no deviations being requested for storm/drainage related items.

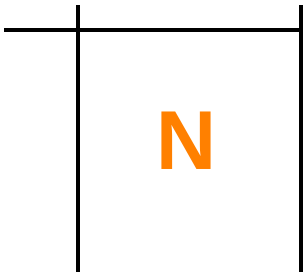
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County does not do Variances. However, only deviations provided were for road design, so this section can be removed or next page statement can be revised to state that there are no deviations being requested for storm/drainage related items.



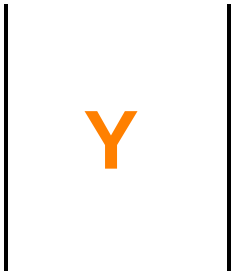
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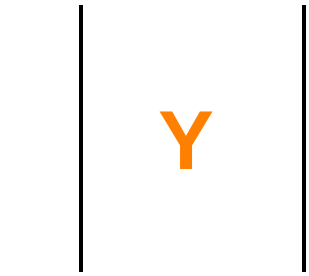
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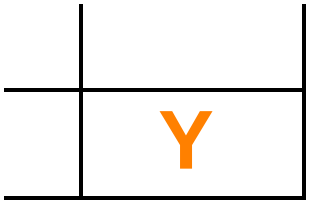
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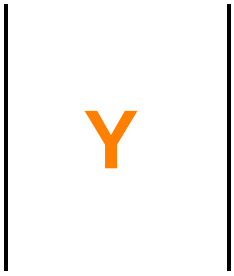
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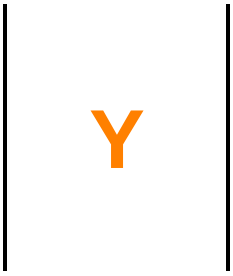
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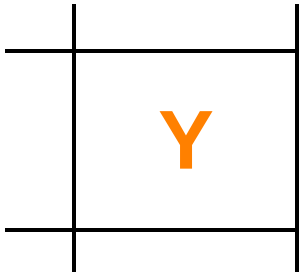
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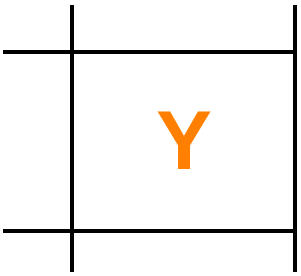
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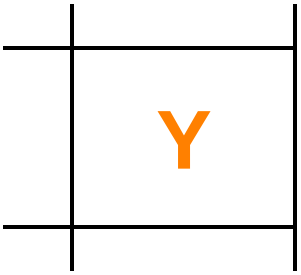
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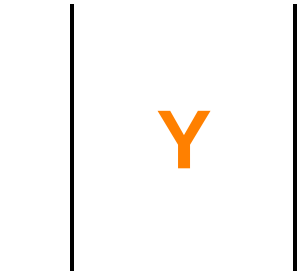
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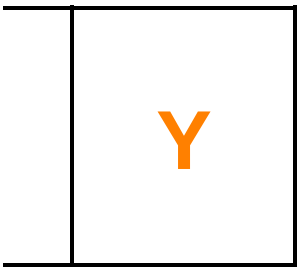
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Date: 5/19/2026 11:13:04 AM
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Subject: Text Box
Page Label: Document1 Drainage Report - Final 42
Author: CDurham
Date: 5/19/2026 11:15:11 AM
Status:
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Ensure all easements are shown and labeled. Verify with SF2420 plat.

Y

Subject: Text Box
Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 3
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:20:20 AM
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Subject: Text Box
Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 3
Author: EPC Stormwater- Zachary
Date: 5/19/2026 11:20:27 AM
Status:
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Layer:
Space:

Y

nd is in accordance
resultant drainage

Indicate who will be maintaining storm system

Subject: Text Box
Page Label: Document1 Drainage Report - Final 15
Author: CDurham
Date: 5/19/2026 11:22:24 AM
Status:
Color:
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Indicate who will be maintaining storm system

All inlets are sump?

Subject: Text Box
Page Label: Document1 Drainage Report - Final 38
Author: CDurham
Date: 5/19/2026 11:23:27 AM
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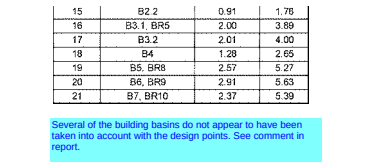
All inlets are sump?

Add StormCAD Design

Subject: Text Box
Page Label: Document1 Drainage Report - Final 40
Author: CDurham
Date: 5/19/2026 11:24:55 AM
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Add StormCAD Design

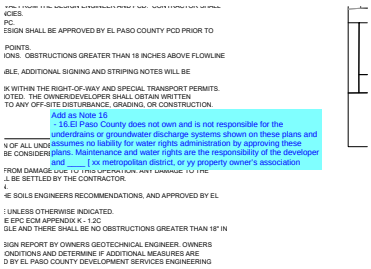
[STORMCAD ANALYSIS]



15	B2.2	0.91	1.76
16	B3.1, BR5	2.00	3.89
17	B3.2	2.01	4.00
18	B4	1.28	2.65
19	B5, BR8	2.57	5.27
20	B6, BR9	2.91	5.63
21	B7, BR10	2.37	5.39

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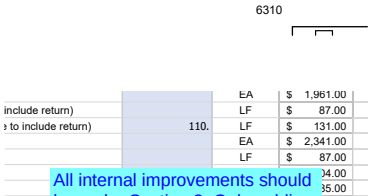
Several of the building basins do not appear to have been taken into account with the design points. See comment in report.



Subject: Text Box
Page Label: Document1 Construction Drawings (Plans-Profiles) [1] 01 STORM COVER & NOTES
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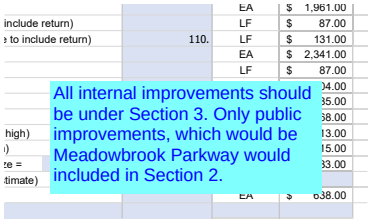
Add as Note 16
- 16.El Paso County does not own and is not responsible for the underdrains or groundwater discharge systems shown on these plans and assumes no liability for water rights administration by approving these plans. Maintenance and water rights are the responsibility of the developer and ____ [xx metropolitan district, or yy property owner's association

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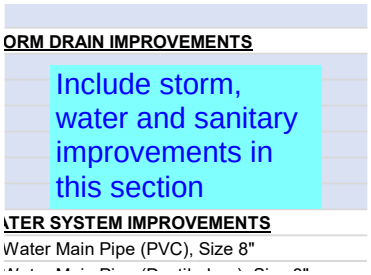
Subject: Text Box
Page Label: Document1 Construction Drawings (Plans-Profiles) [2] 02 STORM PLAN & PROFILE I
Author: CDurham
Date: 5/19/2026 11:31:34 AM
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Comments provided are general in nature. Once StormCAD design has been provided in the FDR, a full review of the storm system will be completed.



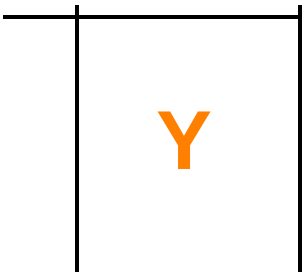
Subject: Text Box
Page Label: Document1 Financial Assurance Estimate (FAE) Form 1
Author: CDurham
Date: 5/19/2026 11:37:08 AM
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All internal improvements should be under Section 3. Only public improvements, which would be Meadowbrook Parkway would included in Section 2.



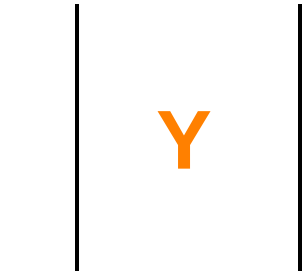
Subject: Text Box
Page Label: Document1 Financial Assurance Estimate (FAE) Form 3
Author: CDurham
Date: 5/19/2026 11:38:10 AM
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Include storm, water and sanitary improvements in this section



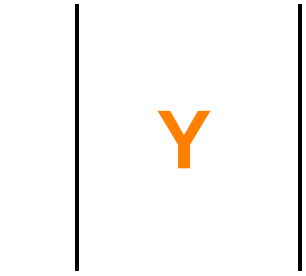
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Page Label: Document1 Storm Water Management Plan (SWMP) Checklist 3
Author: EPC Stormwater- Zachary
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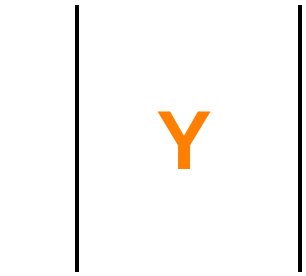
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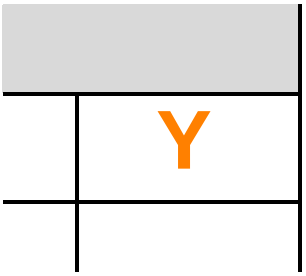
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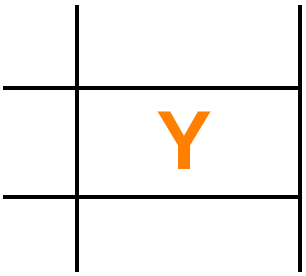
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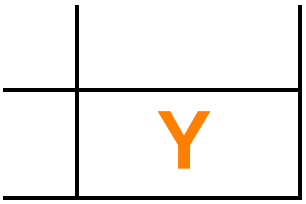
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Subject: Text Box
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Subject: Text Box
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