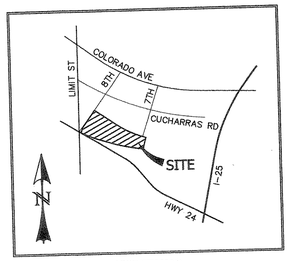
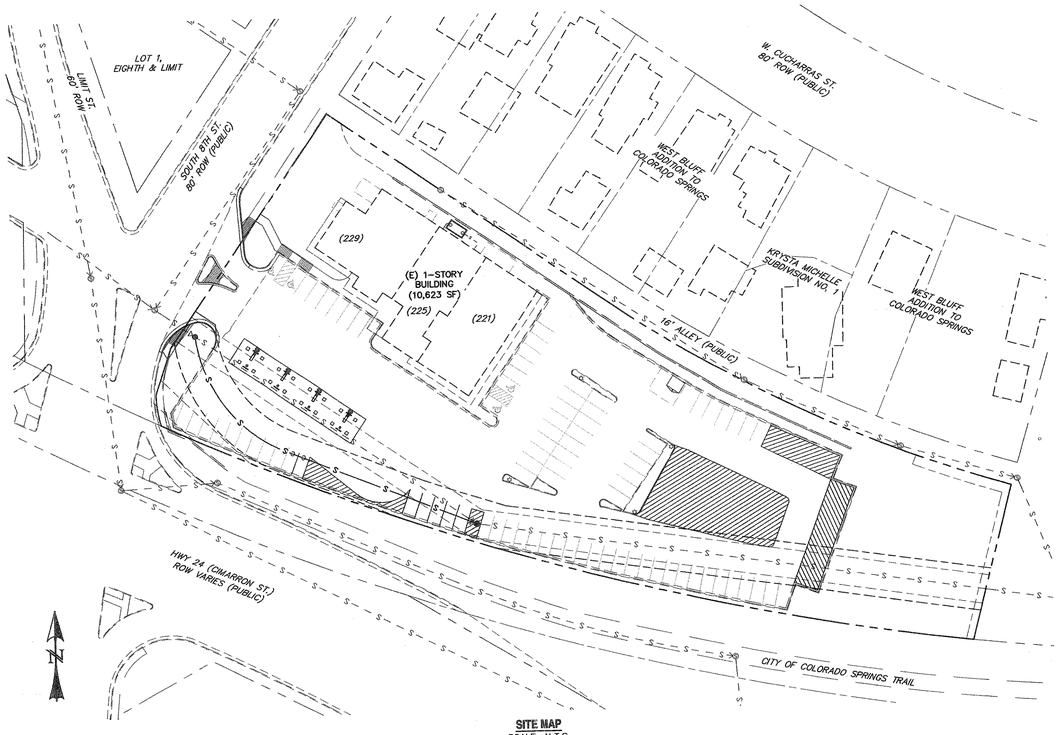
SHOPPES AT BEAR CREEK PLAZA

SANITARY SEWER PLAN

CITY OF COLORADO SPRINGS, EL PASO COUNTY, COLORADO



VICINITY MAP
SCALE: N.T.S.



SITE MAP
SCALE: N.T.S.

WASTEWATER GENERAL NOTES:

THE CONTRACTOR SHALL NOTIFY THE COLORADO SPRINGS UTILITIES, INSPECTION SUPERVISOR (668-4658) 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO OUTLINE METHODS OF CONSTRUCTION, MATERIALS TO BE USED, AND CONSTRUCTION STAKING.

1. AT APPLICANT'S EXPENSE, ALL D.I.P. SHALL BE CATHODICALLY PROTECTED BY BONDING ALL JOINTS, POLY-WRAPPING THE PIPE, AND INSTALLING 17LB MAGNESIUM ANODES AT THE LOCATIONS SHOWN ON THE DRAWINGS.
2. ALL FACILITIES SHALL BE INSTALLED PER COLORADO SPRINGS UTILITIES LINE EXTENSION & SERVICE STANDARDS.
3. APPLICANT'S DESIGN PLAN IS NOT ELIGIBLE FOR APPROVAL UNTIL SPRINGS UTILITIES HAS APPROVED ANY REQUIRED BYPASS PUMPING PLAN OR FLOW MANAGEMENT PLAN. THE CONTRACTOR SHALL HAVE 100% REDUNDANT PUMPING CAPACITY WITH TWENTY-FOUR (24) HOUR SUPERVISION DURING ALL PUMPING OPERATIONS.
4. CONTRACTOR SHALL LOCATE AND RAISE ALL MANHOLES LOCATED WITHIN THE PROJECT LIMITS. IF THE MANHOLE IS IN POOR CONDITION OR IF THE DISTANCE BETWEEN RING/COVER AND CONE OF THE MANHOLE EXCEEDS THE WASTEWATER STANDARDS, THE CONTRACTOR MAY BE REQUIRED TO REPLACE PART OR ALL OF THE EXISTING MANHOLE.
5. FOR ALL MANHOLES TO BE ABANDONED, CONTRACTOR SHALL: PLUG THE "IN" AND "OUT" INVERTS WITH A WATERTIGHT MECHANICAL PLUG AND GROUTED, REMOVE AND DISPOSE OF THE CONE SECTION, REMOVE THE RING AND COVER AND RETURN THEM TO SPRINGS UTILITIES, AND FILL THE MANHOLE WITH COMPACTED FILL.
6. IF AN ABANDONED WASTEWATER LINE FALLS UNDER A PROPOSED STRUCTURE, CONTRACTOR SHALL REMOVED IT OR GROUT IT FULL.
7. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AND THE ENGINEER IMMEDIATELY SO THAT APPLICANT CAN TAKE APPROPRIATE ACTION.
8. APPLICANT IS RESPONSIBLE FOR ANY DAMAGE TO THE WASTEWATER MAINS AS A RESULT OF HIS AGENT'S ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF THE INSPECTOR.
9. ALL PIPELINES 10" DIAMETER AND LARGER AND PIPELINES AT A GRADE OF 1.04% OR LESS SHALL BE "AS-BUILT" SURVEYED. "AS-BUILT" DRAWING(S) AND ELECTRONIC FILE SHALL BE SUBMITTED TO THE SPRINGS UTILITIES (INFRASTRUCTURE RECORDS) FOR APPROVAL.
10. FOR SEPTIC TANKS TO BE ABANDONED, CONTRACTOR SHALL PLUG THE INVERTS, REMOVE THE LID, AND FILL THE TANK WITH APPROVED (GRANULAR) COMPACTED FILL. AT APPLICANT'S SOLE EXPENSE, CONTRACTOR SHALL NOTIFY THE EL PASO COUNTY DEPARTMENT OF HEALTH WHEN ANY SEPTIC TANK IS ABANDONED AND OBTAIN ALL NECESSARRY FEES AND PERMITS.
11. THE CONTRACTOR WILL VERIFY AND RECONNECT ALL PRE-EXISTING SERVICE CONNECTIONS SUBJECT TO THE INSPECTOR'S APPROVAL. THE CONTRACTOR SHALL NOTE THAT SERVICES OTHER THAN THOSE FROM ADJACENT STRUCTURES MAY BE ENCOUNTERED.
12. CONTRACTOR SHALL INSTALL TRACER WIRE WITH ALL WASTEWATER MAINS AND SERVICE LINES (FROM THE WASTEWATER MAIN TO THE BUILDING STRUCTURE).
13. NO TREES ARE PERMITTED WITHIN FIFTEEN FEET (15') OF A WASTEWATER MAIN OR INTERCEPTOR.

MAIN EXTENSION WARRANTY STATEMENT

APPLICANT, AT ITS SOLE EXPENSE, SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE GRADE, ALIGNMENT, ELEVATION, AND DEPTH OF COVER OF EXISTING SPRINGS UTILITIES WASTEWATER LINES AND APPURTENANCES. APPLICANT, AT ITS SOLE EXPENSE, SHALL BE SOLELY RESPONSIBLE FOR ALL DAMAGES AND DEFECTS TO THE COLLECTION SYSTEM ARISING FROM OR RELATED TO THE INSTALLATION, MAINTENANCE, OR OPERATION OF THE MAIN EXTENSIONS, FROM THE DATE OF CONSTRUCTION PLAN APPROVAL UNTIL SUCH TIME AS FINAL ACCEPTANCE.

SIGNED _____ DATE 3/22/10
APPLICANT
Grant Darrell, President
(PRINT NAME)
DBA GREAT SPACES
ADDRESS 320 BEAR CREEK ROAD
COLORADO SPRINGS, CO 80906

COLORADO SPRINGS UTILITIES
PUBLIC WASTEWATER SYSTEM DESIGN APPROVAL 1 of 3
DATE: 3/22/10 BY: [illegible]
PROJECT NO. 2008-S091 RMS NO. 1771939

THIS PROJECT DESIGN, MATERIALS AND CONSTRUCTION SHALL COMPLY WITH COLORADO SPRINGS UTILITIES, AS DEFINED IN THE WASTEWATER LINE EXTENSION AND SERVICE STANDARDS. 48-HOUR NOTIFICATION IS REQUIRED PRIOR TO START OF CONSTRUCTION. PHONE THE INSPECTION SECTION.

APPROVAL EXPIRES ONE (1) YEAR FROM DESIGN APPROVAL DATE.

APPROVED FOR CONSTRUCTION

NOTES:

1. NO LANDSCAPING (LARGE TREES, ETC.) OR STRUCTURE SHALL BE CONSTRUCTED WITHIN FIFTEEN FEET (15' EACH SIDE OF CENTERLINE) OF A SANITARY SEWER PIPELINE.
2. **MAINTAIN 18" MIN. CLEARANCE AT ALL UTILITY CROSSINGS.**

R. Walker
Specialty Rooter
Start - 3-23-10
Finish 5-6-10
Air - 5-6-10
Vac - 5-6-10
202' 8" Pvc SDR35
1-5' manhole.
1-4' manhole.
1-4" Service
162' Removed
75' abandoned

LEGEND

EXISTING	(E)
PROPOSED	(P)
ADDRESS	(221)
CURB AND GUTTER	C&G
BOUNDARY	
ROW	
LOT LINE	
EASEMENT	
(E) SANITARY	S
(E) WATER MAIN, VALVE, FH	W
(E) GAS MAIN	G
(E) OVERHEAD UTILITY	OHU
(P) SANITARY MAIN, MH	S
(P) 6" PVC SAN. SEWER SERVICE	S

BENCHMARK:

FIMS BENCHMARK "F152"; A BERNSTEN 3-D TOP SECURITY ROD WITH A 3.5" DIA. ALUMINUM CAP IN A ROAD BOX, LOCATED IN THE CENTER MEDIAN OF 8TH STREET APPROXIMATELY 150 FEET NORTH OF HIGHWAY 24. ELEVATION = 65976.72'

BASIS OF BEARINGS:

ALL BEARINGS ARE RELATIVE TO THE WESTERLY BOUNDARY LINE OF LOT 1, SIZZLIN WEST SUBDIVISION AND IS ASSUMED TO BEAR N 35°00'00" E.

SHEET INDEX:

TITLE SHEET 1 OF 3
PLAN & PROFILE 2 OF 3
UTILITY SERVICE PLAN 3 OF 3

REV.	DESCRIPTION	DATE
1	ADDRESS COMMENTS	03/05/10
2	ADDRESS COMMENTS	03/19/10

811 Know what's below. Call 72 hours before you dig. For more details visit: www.call811.com

FIMS MAP NO.: F-34 & G-34
DP NUMBER: CPC 86-280-A2MJ08 (APRIL 14, 2009)
UDCF NUMBER: CF2008131
RECEPTION NUMBERS:
PLAT BK: C4, PG: 31
(P) PUBLIC UTILITY EASEMENT 216026384

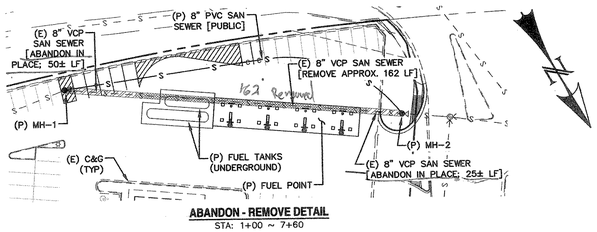
PREPARED FOR:
GREAT SPACES
320 BEAR CREEK ROAD
COLORADO SPRINGS, CO 80906

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF WESTWORKS ENGINEERING
CHAD D. KUZBEYNOV, COLORADO PE #35751 — DATE 3/19/10

WESTWORKS ENGINEERING
1023 W. COLORADO COLORADO SPRINGS, CO 80904 (719) 685-1570

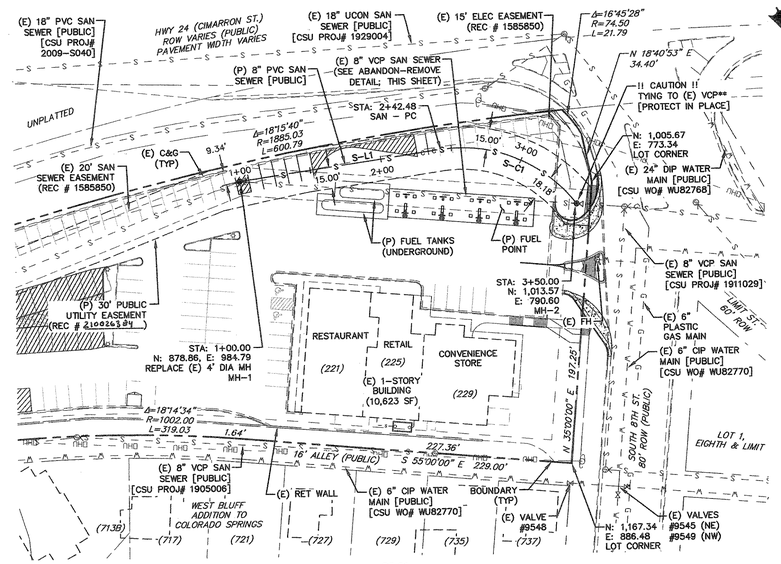
SHOPPES AT BEAR CREEK PLAZA
SANITARY SEWER PLAN

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: N/A	DATE: 02/12/10
JOB NUMBER 91008	SHEET 1 OF 3



ABANDON - REMOVE DETAIL

STA: 1+00 ~ 7+60



SS-01

STA: 1+00 ~ 7+60

LINE TABLE - SANITARY SEWER		
LINE	BEARING	DISTANCE
S-L1	N68°04'13"W	142.48

CURVE TABLE - SANITARY SEWER			
CURVE	DELTA	RADIUS	LENGTH
S-C1	61°36'12"	100.00	107.52

0 50 100

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

LEGEND

REMOVE (E) SANITARY SEWER

ABANDON IN PLACE (E) SANITARY SEWER (FLOW FILL REQUIRED)

MAIN EXTENSION WARRANTY STATEMENT

APPLICANT, AT ITS SOLE EXPENSE, SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE GRADE, ALIGNMENT, ELEVATION, AND DEPTH OF COVER OF EXISTING SPRINGS UTILITIES WASTEWATER LINES AND APPURTENANCES. APPLICANT, AT ITS SOLE EXPENSE, SHALL BE SOLELY RESPONSIBLE FOR ALL DAMAGES AND DEFECTS TO THE COLLECTION SYSTEM ARISING FROM OR RELATED TO THE INSTALLATION, MAINTENANCE, OR OPERATION OF THE MAIN EXTENSIONS, FROM THE DATE OF CONSTRUCTION PLAN APPROVAL UNTIL SUCH TIME AS FINAL ACCEPTANCE.

SIGNED [signature] DATE 2/23/10

APPLICANT Grant Dorsey II, President
(PRINT NAME)

DBA GREAT SPACES

ADDRESS 320 BEAR CREEK ROAD
COLORADO SPRINGS, CO 80906

COLORADO SPRINGS UTILITIES
PUBLIC WASTEWATER SYSTEM DESIGN APPROVAL 2013

DATE: 5/23/10 BY: [signature]

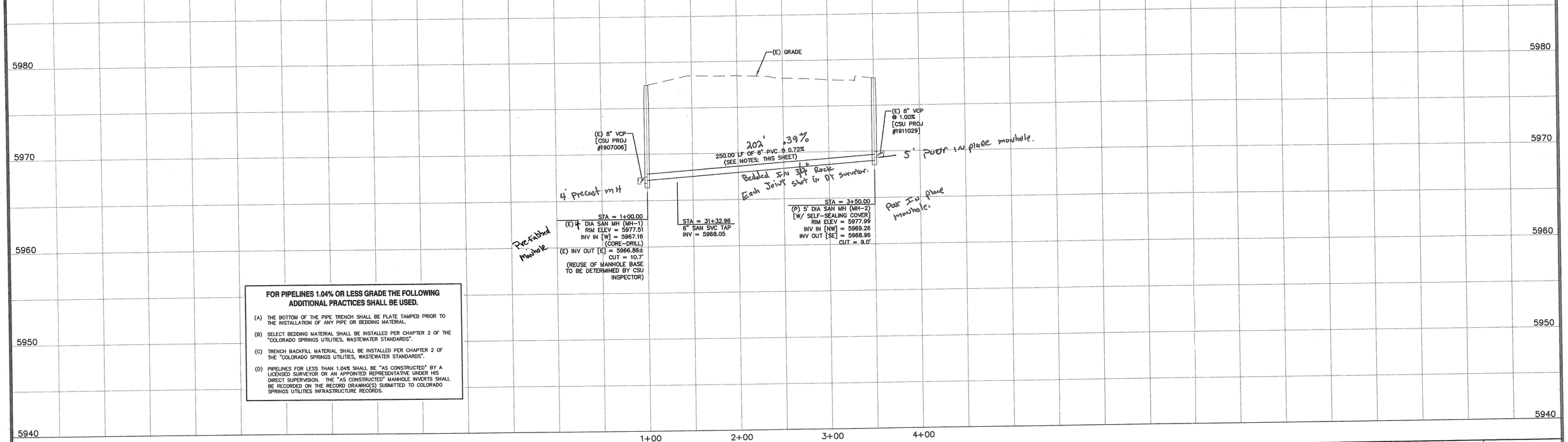
PROJECT NO. 2008-S091 RMS NO. 1771939

THIS PROJECT DESIGN, MATERIALS AND CONSTRUCTION SHALL COMPLY WITH COLORADO SPRINGS UTILITIES, AS DEFINED IN THE WASTEWATER LINE EXTENSION AND SERVICE STANDARDS. 48-HOUR NOTIFICATION IS REQUIRED PRIOR TO START OF CONSTRUCTION. PHONE THE INSPECTION SECTION.

APPROVAL EXPIRES ONE (1) YEAR FROM DESIGN APPROVAL DATE.

NOTES:

1. NO LANDSCAPING (LARGE TREES, ETC.) OR STRUCTURE SHALL BE CONSTRUCTED WITHIN FIFTEEN FEET (15' EACH SIDE OF CENTERLINE) OF A SANITARY SEWER PIPELINE.
2. **MAINTAIN 18" MIN. CLEARANCE AT ALL UTILITY CROSSINGS.**



FOR PIPELINES 1.04% OR LESS GRADE THE FOLLOWING ADDITIONAL PRACTICES SHALL BE USED.

(A) THE BOTTOM OF THE PIPE TRENCH SHALL BE PLATE TAMPED PRIOR TO THE INSTALLATION OF ANY PIPE OR BEDDING MATERIAL.

(B) SELECT BEDDING MATERIAL SHALL BE INSTALLED PER CHAPTER 2 OF THE "COLORADO SPRINGS UTILITIES, WASTEWATER STANDARDS".

(C) TRENCH BACKFILL MATERIAL SHALL BE INSTALLED PER CHAPTER 2 OF THE "COLORADO SPRINGS UTILITIES, WASTEWATER STANDARDS".

(D) PIPELINES FOR LESS THAN 1.04% SHALL BE "AS CONSTRUCTED" BY A LICENSED SURVEYOR OR AN APPOINTED REPRESENTATIVE UNDER HIS DIRECT SUPERVISION. THE "AS CONSTRUCTED" MANHOLE INVERTS SHALL BE RECORDED ON THE RECORD DRAWING(S) SUBMITTED TO COLORADO SPRINGS UTILITIES INFRASTRUCTURE RECORDS.

REV.	DESCRIPTION	DATE
1	ADDRESS COMMENTS	03/05/10
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FIMS MAP NO.: F-34 & G-34

DP NUMBER: CPC 86-280-A2MJ08 (APRIL14, 2009)

RECEPTION NUMBERS:
PLAT BK: C4, PG: 31
(P) PUBLIC UTILITY EASEMENT 210024384

PREPARED FOR:
GREAT SPACES
320 BEAR CREEK RAOD
COLORADO SPRINGS, CO 80906

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF WESTWORKS ENGINEERING

COLORADO LICENSED PROFESSIONAL ENGINEER CHAD D. KUZBEK 35751

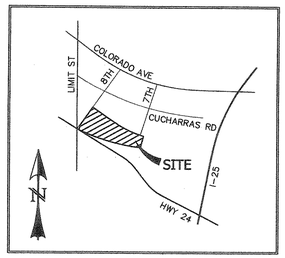
CHAD D. KUZBEK, COLORADO PE #35751 — DATE 3/19/10

WESTWORKS ENGINEERING
1023 W. COLORADO COLORADO SPRINGS, CO 80904 (719) 685-1670

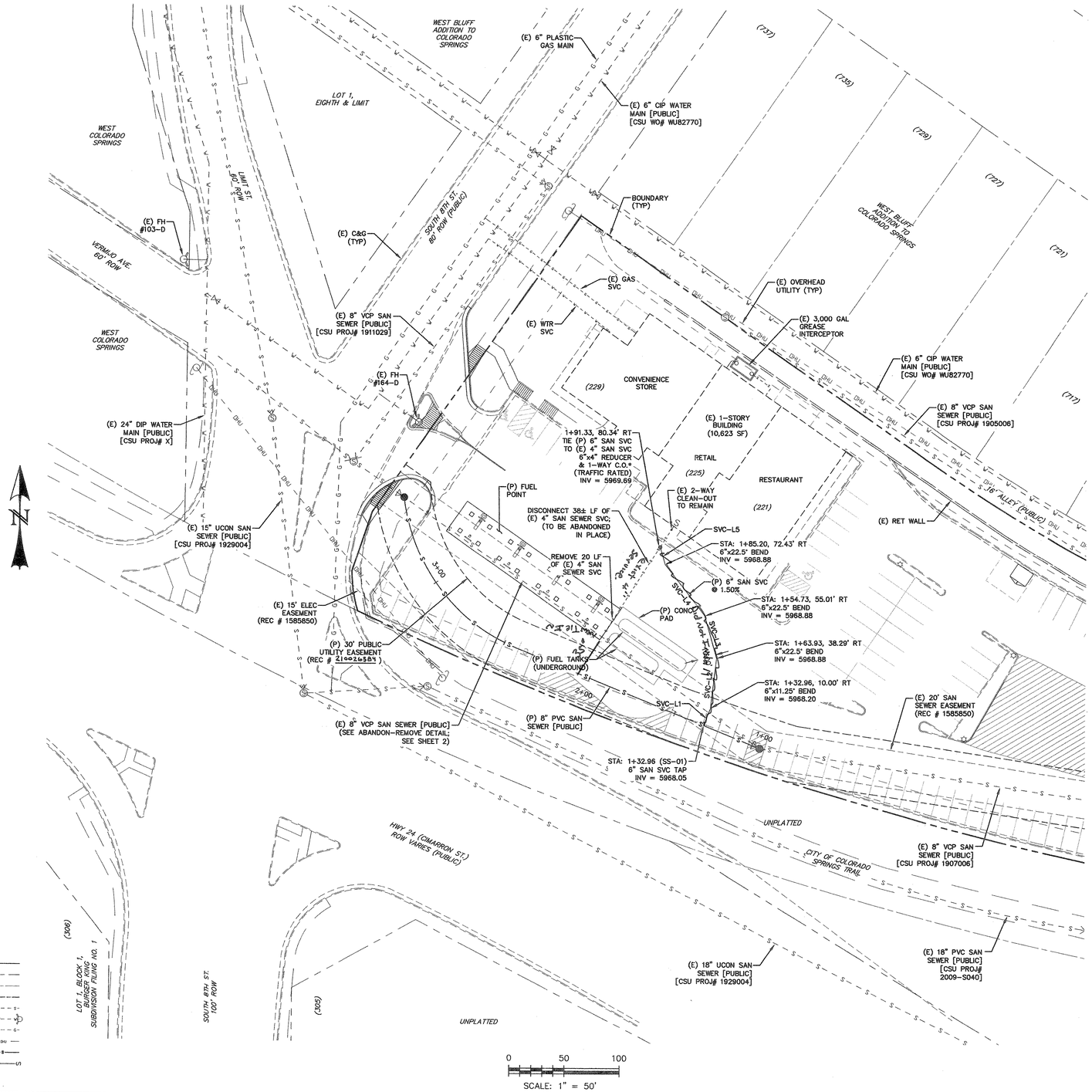
SHOPPES AT BEAR CREEK PLAZA

SANITARY SEWER PLAN

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1"=50'	DATE: 02/12/10
JOB NUMBER 91008	SHEET 2 OF 3



VICINITY MAP
SCALE: N.T.S.



LINE TABLE - SERVICES		
LINE	BEARING	DISTANCE
SVC-L1	N21°55'47"E	10.00
SVC-L2	N06°40'47"E	27.04
SVC-L3	N15°49'13"W	23.94
SVC-L4	N38°19'13"W	35.11
SVC-L5	N15°49'13"W	10.00

LEGEND

EXISTING	(E)
PROPOSED	(P)
ADDRESS	(221)
CURB AND GUTTER	C&G
BOUNDARY	
ROW	
LOT LINE	
EASEMENT	
(E) SANITARY	
(E) WATER MAIN, VALVE, FH	
(E) GAS MAIN	
(E) OVERHEAD UTILITY	
(P) SANITARY MAIN, MH	
(P) 6" PVC SAN. SEWER SERVICE	

GENERAL NOTES FOR SANITARY SERVICE LINES:

(TO BE ADDED TO SERVICE PLANS, REF: WASTEWATER DETAIL DRAWINGS C 5-1, 2, 3, & 4)

THE CONTRACTOR SHALL NOTIFY THE COLORADO SPRINGS UTILITIES, DISPATCH (668-3524) 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO OUTLINE METHODS OF CONSTRUCTION, MATERIALS TO BE USED, AND CONSTRUCTION STAKING.

1. WASTEWATER SERVICES TO BE LOCATED IN THE CENTER OF THE LOT, OR THE CENTER OF THE DRIVEWAY FOR A FLAG LOT. (PER WASTEWATER DETAIL DRAWING C 5-1).

   NOTE: ALTERNATE SERVICE LOCATION, IS ONLY WITH THE APPROVAL OF COLORADO SPRINGS UTILITIES SHOWN ON WASTEWATER DETAIL DRAWING C 5-1.
2. SANITARY SEWER SERVICES TO BE INSTALLED A MINIMUM OF 7 FEET INTO THE PROPERTY UNLESS OTHERWISE SHOWN. WATER SERVICE LINES SHALL BE INSTALLED TO THE PROPERTY LINE, I.E. CURB STOP BOX.
3. PROPERTY END OF ALL SEWER SERVICES TO BE MARKED WITH A 2"X4"X12' WOOD POST EXTENDING VERTICALLY FROM FLOW-LINE.
4. FINAL LOCATION OF ALL SEWER, WATER AND GAS SERVICES TO BE APPROVED IN THE FIELD BY THE COLORADO SPRINGS UTILITY INSPECTOR.
5. UTILITY LOCATIONS, WHETHER OR NOT SHOWN ON THIS PLAN, IN NO WAY RELIEVES THE CONTRACTOR FROM THE RESPONSIBILITY OF CALLING FOR AND OBTAINING UTILITY LOCATIONS FROM THE APPROPRIATE AUTHORITIES PRIOR TO BEGINNING EXCAVATION.
6. SANITARY SEWER SERVICE CONNECTIONS TO BE A MINIMUM OF 5 FEET FROM ANY MANHOLE ON THE MAIN LINE AND TWO (2) FEET BETWEEN TAPS CENTER TO CENTER.
7. ALL CLEAN-OUTS SHALL BE THE SAME SIZE AS THE HOST PIPE (I.E. 6" SERVICE LINE REQUIRES A 6" CLEAN-OUT, TO BE INSTALLED PER COLORADO SPRINGS UTILITIES STANDARD DETAIL C 5-4).

UTILITY SERVICE PLAN

OWNER/DEVELOPER STATEMENT

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THE INSTALLATION OF THESE PROPOSED UTILITY SERVICES WILL BE MADE IN ACCORDANCE WITH COLORADO SPRINGS UTILITIES STANDARDS. THE APPROVAL DATE ON THE PLAN(S) EXPIRES IN ONE (1) YEAR AND SHALL REQUIRE RE-SUBMITTAL FOR SIGNATURE IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

SIGNED: _____ DATE: 3/23/10
OWNER/DEVELOPER:
Chris Darnell, President
PRINTED NAME
DBA: GREAT SPACES
ADDRESS: 320 BEAR CREEK ROAD
COLORADO SPRINGS, CO 80906
PHONE: (719) 659-6755

COLORADO SPRINGS UTILITIES
WASTEWATER SERVICE APPROVAL 3 of 3

SIGNED: _____ DATE: 3/22/10
PROJECT NUMBER: 2008-C129 RMS NO: 1771929
APPROVAL EXPIRES ONE (1) YEAR FROM DESIGN APPROVAL DATE.

NOTES:

1. NO LANDSCAPING (LARGE TREES, ETC.) OR STRUCTURE SHALL BE CONSTRUCTED WITHIN FIFTEEN FEET (15' EACH SIDE OF CENTERLINE) OF A SANITARY SEWER PIPELINE.
2. **MAINTAIN 18" MIN. CLEARANCE AT ALL UTILITY CROSSINGS.**
3. *** CLEAN-OUTS PER CSU STANDARD DETAIL C 5-4**
4. THE PROPERTY OWNER, AT THEIR EXPENSE, SHALL CLEAN AND CCTV THE EXISTING SERVICE LINE TO THE PUBLIC MAIN. AFTER REVIEW OF THE TAPE BY SPRINGS UTILITIES, IT IS FOUND THAT THE LINE HAS NO DEFICIENCIES, OR THAT THE DEFICIENCIES ARE CORRECTED, THE OWNER MAY REUSE THE EXISTING SERVICE LINE. SERVICE LINES FOUND TO BE UNACCEPTABLE SHALL BE CAPPED AT THE PUBLIC MAIN.

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PLAT BK: C4, PG: 31
(P) PUBLIC UTILITY EASEMENT 2100263B4

PREPARED FOR:
GREAT SPACES
320 BEAR CREEK ROAD
COLORADO SPRINGS, CO 80906

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF WESTWORKS ENGINEERING
CHAD D. KUZBELA, COLORADO PE #35751 — DATE: 3/19/10

WESTWORKS ENGINEERING
1023 W. COLORADO COLORADO SPRINGS, CO 80904 (719) 685-1670

SHOPPES AT BEAR CREEK PLAZA

UTILITY SERVICE PLAN

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1"=50'	DATE: 02/12/10
JOB NUMBER	SHEET
91008	3 OF 3