MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER, COLORADO
CIVIL CONSTRUCTION DRAWINGS

PROJECT CONTACTS:

RECORD OWNER
EVT PARKER COLORADO, LLC
2710 E CAMELBACK ROAD, SUITE 210
PHOENIX, AZ 85016
TEL: (602) 468-6100
CONTACT: RYAN AMATO

DEVELOPER/APPLICANT
MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
CONTACT: GARY HEGENER

ENGINEER/CONSULTANT
GALLOWAY & COMPANY, INC.
6162 S. WILLOW DRIVE, SUITE 320
GREENWOOD VILLAGE, CO 80111
TEL: (303) 770-8884
FAX: (303) 770-3636
CONTACT: JIM ERWIN-SVOBODA, P.E.
EMAIL: JIMERWINSVOBODA@GALLOWAYUS.COM

LANDSCAPE/CONSULTANT
GALLOWAY & COMPANY, INC.
6162 S. WILLOW DRIVE, SUITE 320
GREENWOOD VILLAGE, CO 80111
TEL: (303) 770-8884
FAX: (303) 770-3636
CONTACT: TIM NELSON, RLA, ASLA, COP
EMAIL: TIMNELSON@GALLOWAYUS.COM

SURVEYOR
GALLOWAY & COMPANY, INC.
1755 TELESTAR DR, SUITE 107
COLORADO SPRINGS, CO 80920
TEL: (303) 770-8884
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CONTACT: BRIAN DENNIS, PLS
EMAIL: BRIANDENNIS@GALLOWAYUS.COM

MUNICIPAL & UTILITY CONTACTS:

ENGINEERING
TOWN OF PARKER – ENGINEERING
20120 E. MAIN STREET
PARKER, CO 80138
TEL: (303) 805-3169
CONTACT: RANDY CAPRA

STORM SEWER
TOWN OF PARKER – PUBLIC WORKS
20120 E. MAIN STREET
PARKER, CO 80138
TEL: (303) 840-9546

FIRE
SOUTH METRO FIRE RESCUE AUTHORITY
9195 E. MINERAL AVE.
CENTENNIAL, CO 80112
TEL: (720) 989-2244
CONTACT: CHIP KERKHOVE

WATER & SANITARY SEWER
PARKER WATER AND SANITATION DISTRICT
1800 E. WOODMAN DRIVE
PARKER, CO 80134
TEL: (303) 841-4627
CONTACT: DRAYTON SANDERSON

ELECTRIC
INTERMOUNTAIN RURAL ELECTRIC ASSOCIATION
5496 NORTH US HIGHWAY 85
SEDALIA, CO 80135
TEL (303) 688-3100
CONTACT: AMANDA STEINER

TELEVISION
COMCAST
1601 MILE HIGH STADIUM CIRCLE
DENVER, CO 80204
EMAIL: DEAN_FLENTHROPE@CABLE.COMCAST.COM
CONTACT: DEAN FLENTHROPE

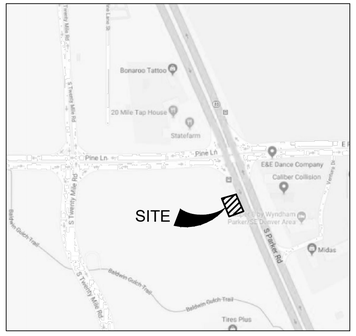
TELEPHONE
CENTURYLINK
1801 CALIFORNIA STREET, SUITE 240
DENVER, CO 80202
CONTACT: IZZY MILLER
EMAIL: IZZY.MILLER@CENTURYLINK.COM

GENERAL CONSTRUCTION NOTES

1. REQUIREMENTS SHOWN ON SITE PLAN SHALL GOVERN. DRAWINGS AND SPECIFICATIONS SHOWING OTHERWISE NOTWITHSTANDING. CONTRACTOR TO POINT OUT ANY DISCREPANCIES TO THE OWNERS REP. PRIOR TO BID.
2. NO WORK IS TO BEGIN UNTIL ALL PERMITS HAVE BEEN OBTAINED.
3. CONTRACTOR TO PROVIDE ALL EQUIPMENT AND PERSONNEL REQUIRED FOR FINAL CHECKOUT OF ALL FACILITIES BY OWNER'S REPRESENTATIVE.
4. ENTIRE INSTALLATION SHALL MEET ALL APPLICABLE CODES.
5. VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE.
6. ANY FILL MATERIAL REQUIRED TO BRING THE SITE TO GRADE SHALL BE CLEAN FILL DIRT APPROVED BY ENGINEER COMPLIANT TO THE RECOMMENDATIONS OF THE APPROVED GEOTECHNICAL REPORT.
7. SET PROPERTY CORNER PINS IN CONCRETE. IF PROPERTY CORNERS ARE DESTROYED BY CONTRACTOR, THE CONTRACTOR SHALL BEAR THE EXPENSE OF RELOCATING CORNERS BY A REGISTERED SURVEYOR.
8. THIS DESIGN IS BASED ON THE GEOTECHNICAL REPORT MPOIL-19-CO-02305-02 DATED APRIL 30, 2019 BY UNITED CONSULTING . A COPY OF THIS REPORT SHOULD BE ON-SITE AT ALL TIMES.
9. GENERAL CONTRACTOR SHALL RECEIVE, UNLOAD, STORE AND UNCRATE ALL EQUIPMENT FURNISHED BY THE OWNER AND SHIPPED TO THE SITE. SEE SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OWNER.
10. GENERAL CONTRACTOR TO REFER TO STANDARD DETAILS INCLUDED IN THE SPECIFICATIONS FOR INSTALLING EQUIPMENT, INCLUDING PRODUCT DISPENSERS AND REMOTE READ-OUT EQUIPMENT.
11. GENERAL CONTRACTOR TO PERFORM GENERAL YARD AND BUILDING CLEAN-UP AT COMPLETION OF WORK.
12. SEE THE SITE SURVEY FOR SURVEY INFORMATION & LEGAL DESCRIPTION.
13. ALL TOP OF CURB GRADES ARE 6" HIGHER THAN FINISH GRADES SHOWN ON DRIVE UNLESS OTHERWISE NOTED.
14. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING DEPOSITION OF ONSITE SEDIMENTS ONTO SURROUNDING PUBLIC STREETS DURING CONSTRUCTION. REFER TO EROSION CONTROL PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE, AND AVAILABLE TO THE CITY, ITS AGENTS, OWNER OR GALLOWAY AT ALL TIMES. DIMENSIONS SHALL BE ANNOTATED ON AS-BUILT RECORD DRAWINGS. AS-BUILT DRAWINGS ARE REQUIRED PRIOR TO ISSUANCE OF FINAL PAYMENT. AS BUILT DRAWINGS WILL BE SUPPLIED TO OWNER AND CITY/TOWN PRIOR TO FINAL PAYMENT.
16. GRADING/UTILITY CONTRACTOR TO COMPLETE GRADING BELOW FINISHED GRADE IN ACCORDANCE WITH PAVING RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED FOR THIS SITE, SHOWN TO TOLERANCE OF ± 0.1' IN ALL PAVING AREAS.
17. GENERAL CONTRACTOR TO PROVIDE BARRICADE PROTECTION WITH FLASHING LIGHTS AROUND ALL FOOTINGS, EXCAVATIONS AND ALL OFFSITE WORK.
18. CONTRACTOR RESPONSIBLE FOR ALL WORK NECESSARY FOR FINAL ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY, INCLUDING BUT NOT LIMITED TO AS-BUILT DRAWINGS, INSPECTIONS, TESTING REPORTS AND CERTIFICATIONS.
19. SURVEYOR TO OBTAIN AutoCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.

STORM DRAINAGE INFRASTRUCTURE NOTES

1. ALL STORM DRAINAGE IMPROVEMENTS ARE SUBJECT TO COMPLIANCE WITH THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, M & S STANDARDS, AND ALL STANDARD SPECIAL PROVISIONS CURRENTLY USED BY CDOT, WITH THE MODIFICATIONS SET FORTH IN THE TOWN OF PARKER'S STORM DRAINAGE AND ENVIRONMENTAL CRITERIA MANUAL (SDECM), AS AMENDED.
2. THE CONTRACTOR SHALL COMPLY WITH THE 'COLORADO WATER QUALITY CONTROL ACT' (TITLE 25, ARTICLE 8 CRS), THE 'PROTECTION OF FISHING STREAMS' TITLE 33, ARTICLE 5, CRS), THE 'CLEAN WATER ACT' (33 USC 1344), CHERRY CREEK RESERVOIR CONTROL REGULATION NO. 72 '(5 CCR 1002-72), THE REGULATION PROMULGATED, CERTIFICATION OR PERMITS ISSUES, AND THE REQUIREMENTS PRESENTED IN THE SDECM REVISION TO SECTION 107 AND THE CONSTRUCTION BMP PLAN. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
3. INSPECTIONS: CONSTRUCTION SHALL NOT BEGIN UNTIL A GRADING PERMIT HAS BEEN ISSUED FOR THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER ENGINEERING DEPARTMENT (PUBLIC WORKS) TO SCHEDULE INSPECTIONS A MINIMUM OF 48 HOURS PRIOR THE CONSTRUCTION OF ALL DRAINAGE INFRASTRUCTURE (STORM SEWERS, INLETS, MANHOLES, ENERGY DISSIPATERS, RIPRAP, GROUTED BOULDERS, DETENTION POND OUTLET STRUCTURES, FOREBAYS, TRICKLE CHANNELS, ETC). FAILURE TO NOTIFY THE ENGINEERING DEPARTMENT FOR INSPECTIONS MAY RESULT IN NON-ACCEPTANCE OF THE INFRASTRUCTURE BY THE TOWN. URBAN DRAINAGE AND FLOOD CONTROL DISTRICT MUST ALSO BE NOTIFIED IN A SIMILAR MANNER FOR ALL MAINTENANCE ELIGIBLE DRAINAGE INFRASTRUCTURES (CONSULT WITH STORMWATER ENGINEERING DIVISION).
4. STRUCTURAL BACKFILL (CDOT CLASS 1) SHALL BE COMPACTED TO CONFORM TO CDOT STANDARD SPECIFICATION 203.03. STRUCTURAL BACKFILL (CDOT CLASS 2) SHALL CONFORM TO CDOT STANDARD SPECIFICATION 203.07. AT THE CONTRACTOR'S OPTION, STRUCTURAL BACKFILL (SQUEEGEE) MEETING THE GRADATION REQUIREMENTS CONTAINED IN REVISION OF SECTION 206 OF THE CDOT STANDARD SPECIFICATIONS AS PRESENTED IN THE SDECM, MAY BE SUBSTITUTED FOR STRUCTURE BACKFILL (CLASS 1) OR CLASS 2) FOR BACKFILLING OF CULVERT PIPES, STORM SEWER PIPES, MANHOLES AND INLET STRUCTURES; HOWEVER, THE TOP 2 FEET BELOW SUBGRADE ELEVATION SHALL BE THE REQUIRED EMBANKMENT MATERIAL.
5. ALL EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
6. TESTING: PROBATIONARY ACCEPTANCE OF STORM DRAINAGE IMPROVEMENTS WILL BE CONTINGENT UPON SATISFACTORY TESTING RESULTS. IN ALL CASES WHERE TESTS INDICATE COMPACTION LESS THAN THAT REQUIRED BY TOWN SPECIFICATIONS, ADDITIONAL COMPACTION AND TESTS WILL BE REQUIRED UNTIL THE SPECIFICATIONS ARE MET. FREQUENCY OF TESTING WILL BE AS FOLLOWS: 1 TEST FOR SUBGRADE AND 1 TEST FOR BACKFILL AT EVERY ABOVE GROUND APPURTENANCE (MANHOLES, INLETS, ETC) 1 TEST EVERY 200 LF OF MAINLINE TRENCH EVERY 1 FOOT OF BACKFILL LIFT AND WITHIN 1 FOOT FROM ALL STRUCTURES.
7. ALLOWABLE STORM SEWER CONDUIT MATERIAL WITHIN THE TOWN OF PARKER SHALL BE LIMITED TO REINFORCED CONCRETE PIPE (RCP) CONFORMING TO CDOT STANDARD SPECIFICATION 706.02.
8. ALL RCP JOINTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C443. RUBBER GASKETS SHALL BE USED ON ALL PIPE JOINTS CONFORMING TO ASTM C443. ALL RCP SECTIONS SHALL BE JOINED IN SUCH A MANNER THAT THE ENDS ARE FULLY ENTERED AND THE INNER SURFACES ARE REASONABLE FLUSH. AVERAGE JOINT GAP THAT EXCEEDS ½ INCH SHALL BE FILLED WITH AN APPROVED FLEXIBLE PLASTIC SEALANT.
9. JOINT RESTRAINTS AND TOE-WALLS, CONFORMING TO CDOT M&S STANDARD PLAN NO. M-601-11 SHALL BE USED ON ALL RCP FLARED END SECTION OUTFALLS.
10. EPOXY COATED REBAR SHALL BE USED AS REINFORCING STEEL ON ALL STORM INLETS AND STRUCTURES. REFERENCE CDOT M&S STANDARD PLAN NO. M-604-10, 11, 12, AND 13.
11. CDOT CLASS D CONCRETE SHALL BE USED FOR ALL CONCRETE DRAINAGE STRUCTURES.
12. PRE-CAST INLETS AND MANHOLE BASES SHALL NOT BE USED WITHIN THE TOWN OF PARKER RIGHT-OF-WAY, WITH THE EXCEPTION OF CDOT TYPE C AND D INLETS.
13. TWO- (2) MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE 'R' CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH AS PRESENTED IN CDOT M&S STANDARD PLAN NO. M-604-12.
14. ALL GROUTING (BOULDERS, RIPRAP) SHALL BE IN ACCORDANCE WITH THE REVISION OF SECTION 506 OF THE CDOT STANDARD SPECIFICATIONS AS PRESENTED IN THE SDECM.
15. ALL BOULDERS AND RIPRAP SHALL BE SELECTED AND PLACED IN ACCORDANCE WITH THE REVISION OF SECTION 506 OF THE CDOT STANDARD SPECIFICATIONS AS PRESENTED IN THE SDECM.
16. CONTRACTOR SHALL REFER TO THE TOWN OF PARKER'S CONSTRUCTION BEST MANAGEMENT PRACTICES DETAILS AND NOTES FOR ALL REQUIREMENTS RELATING TO RE-VEGETATION, SEDIMENT AND EROSION CONTROL REQUIREMENTS FOR CONSTRUCTION ACTIVITIES.
17. PIPE BELLS SHALL NOT BE CAST INTO MANHOLE BASES OR INLETS.



VICINITY MAP
(NOT TO SCALE)

GENERAL NOTES

A. CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, UNDERGROUND STORAGE TANKS AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.

B. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

C. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

D. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

E. ALL CONSTRUCTION WITHIN STATE HIGHWAY DEPARTMENT RIGHT-OF-WAY SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT RESIDENT MAINTENANCE ENGINEER.

F. ALL SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE RELEVANT UTILITY COMPANY OR REGULATORY AUTHORITY, AND THE SPECIFICATIONS FOR THE CONSTRUCTION OF THE EXISTING IMPROVEMENTS WHICH ARE BEING ALTERED OR REPLACED. CONTRACTOR SHALL CONTACT THE ENGINEER FOR SPECIFICATION SECTIONS FOR ITEMS SUCH AS LANDSCAPING AND IRRIGATION THAT ARE AFFECTED BY THE WORK BUT NOT COMPLETELY DETAILED OR SPECIFIED ON THESE PLANS.

G. CONSTRUCTION AND INSTALLATION OF 2,824 SF BUILDING, ALL UTILITY ENTRANCES AND (1) 25,000 GALLON & (1) 26,000 GALLON UNDERGROUND TANKS SHALL BE IN ACCORDANCE WITH ASSOCIATED PLANS.

H. THE GENERAL CONTRACTOR TO COORDINATE THE CANOPY SIGN LOCATIONS AND FREE-STANDING SIGNAGE WITH MURPHY'S PROJECT MANAGER.

I. STAGE II VAPOR RECOVERY SYSTEM IS NOT REQUIRED.

NOTES TO CONTRACTOR

A. THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD WITH THE DATE WHEN CONSTRUCTION IS TO BEGIN.

B. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND LAYOUT.

C. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ENGINEER OF RECORD OF ANY DEVIATIONS DURING CONSTRUCTION AND SHALL REPORT THEM IMMEDIATELY.

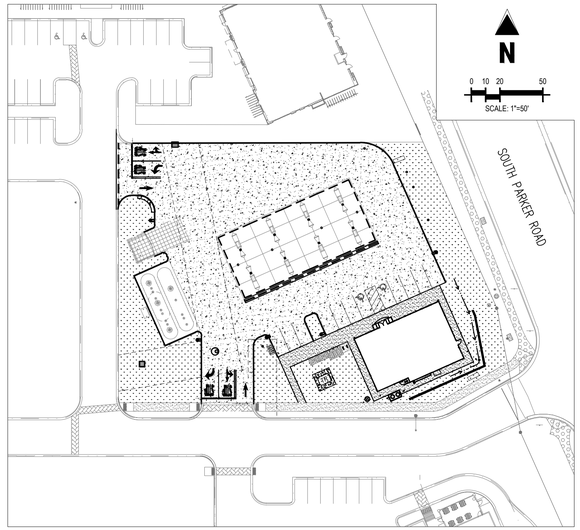
D. CONTRACTOR IS REQUIRED TO KEEP REDLINE AS-BUILTS AND TO PROVIDE THOSE TO MURPHY UPON COMPLETION.

E. CONTRACTOR IS RESPONSIBLE FOR UNDERSTANDING THE AS-BUILT AND CERTIFICATE OF OCCUPANCY (C.O.) REQUIREMENTS FOR THE ISSUING AUTHORITY.

F. IF AN ELEVATION CERTIFICATE OR AS-BUILT SURVEY IS REQUIRED BY THE ISSUING AUTHORITY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION THE SCHEDULING OF THE SURVEY WITH THE CIVIL CONSULTANT PRIOR TO DEADLINE FOR OBTAINING THE C.O. AND AFTER NECESSARY COMPLETED WORK TO BE SHOWN ON SURVEY. THE AS-BUILT SURVEY FOR THE PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR.

FIRE NOTES

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN DRIVE LANES FOR EMERGENCY VEHICLE INGRESS AND EGRESS, INCLUDING SNOW REMOVAL.
2. EMERGENCY VEHICLE ACCESS ROAD IS REQUIRED TO ALLOW ACCESS WITHIN 150' OF ALL EXTERIOR OF THE BUILDING BY AN APPROVED ROUTE.
3. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS AND SHALL BE PROVIDED WITH A SURFACE SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. ACCESS ROAD SHALL BE EITHER CONCRETE, ASPHALT, OR OTHER APPROVED ALTERNATIVE MATERIAL ACCOMPANIED WITH AN ENGINEER'S STAMP STATING THE MATERIAL WILL MEET A 75,000 LBS IMPOSED LOAD.
4. FIRE HYDRANT(S) ARE REQUIRED TO BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF VERTICAL CONSTRUCTION.
5. "NO PARKING FIRE LANE" SIGNS ARE REQUIRED IN AREAS THAT MEET THE FOLLOWING CRITERIA AND IN AREAS DESIGNATED BY THE FIRE PREVENTION BUREAU. SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS LESS THAN 26 FEET WIDE. SIGNS SHALL BE POSTED ON ONE SIDE ONLY OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS BETWEEN 26 FEET WIDE AND 32 FEET WIDE. NO SIGNAGE IS REQUIRED FOR ACCESS ROADWAY FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS EXCEEDING 32 FEET WIDE.
6. WHEN FIRE APPARATUS ACCESS ROADS OR A WATER SUPPLY FOR FIRE PROTECTION IS REQUIRED TO BE INSTALLED, SUCH PROTECTION SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO BUILDING CONSTRUCTION GOING VERTICAL.



SITE MAP
SCALE: 1"=50'

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING — DATE

FIRE CODE REVIEW BLOCK

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

FIRE CODE OFFICIAL or DESIGNATED REPRESENTATIVE — (DATE)

(NOTE – UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

SOIL PREPARATION NOTE

SOIL PREPARATION SHALL BE PER RECOMMENDATIONS FROM A GEOTECHNICAL ENGINEERING REPORT PREPARED FOR MURPHY OIL USA, INC., AT PARKER ROAD & PINE LANE, PARKER, COLORADO AS FOLLOWS:

GEOTECHNICAL ENGINEER: UNITED CONSULTING

PROJECT NO.: MPOIL-19-CO-02305-02

THE CONTRACTOR MUST FULLY REVIEW THESE REPORTS PRIOR TO CONSTRUCTION. INFORMATION IN THE GEOTECHNICAL REPORT SUPERSEDES ANY CONFLICTING INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. REFER TO GENERAL STRUCTURAL NOTES FOR SPECIFIC SOIL PREPARATION AT SITE STRUCTURES.

SIGHT DISTANCE CERTIFICATION

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THE PROPOSED SUBDIVISION, PARKER AUTO FILING, IS DESIGNED IN ACCORDANCE WITH THE TOWN OF PARKER SIGHT DISTANCE CRITERIA AND WITH AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAY AND STREETS.

(REGISTERED PROFESSIONAL ENGINEER) — (LICENSE NO.) — (DATE)

SHEET INDEX

SHEET NUMBER	DESCRIPTION
C-0	COVER SHEET
C-1	SITE PLAN
1 OF 1	ALTA/NSPS LAND TITLE SURVEY
C-3	GRADING PLAN
C-3.1	BUILDING ELEVATIONS
C-4.1	CBMP PLAN
C-4.2	CBMP DETAILS
C-4.3	CBMP DETAILS
C-4.4	CBMP DETAILS
C-4.5	CBMP DETAILS
C-4.6	CBMP DETAILS
C-4.7	CBMP DETAILS
C-4.8	CBMP DETAILS
C-4.9	CBMP DETAILS
C-4.10	CBMP DETAILS
C-4.11	CBMP DETAILS
C-6	OVERALL UTILITY PLAN
C-6.1	UTILITY DETAILS
C-6.2	UTILITY DETAILS
C-6.3	UTILITY DETAILS
C-6.4	UTILITY DETAILS
C-6.5	UTILITY DETAILS
C-6.6	STORM AND SANITARY PLAN
C-6.7	STORM PLAN & PROFILE
C-7	PAVING JOINT PLAN
C-8	TRUCK ROUTE PLAN
C-9	DETAILS
C-10	DETAILS
C-11	DETAILS
C-12	CONCRETE SPECIFICATIONS
C-13	EARTHWORK SPECIFICATIONS
C-14	DUMPSTER DETAILS
L-1.1	LANDSCAPE PLAN
L-1.2	LANDSCAPE DETAILS & NOTES
IR-1.1	IRRIGATION PLAN
IR-1.2	IRRIGATION DETAILS
IR-1.3	IRRIGATION NOTES & DETAILS

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24969 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

WETLANDS NOTE:

ANY DEVELOPMENT EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. ARMY CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY, THE CONTRACTOR SHALL HOLD THE OWNER/DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

FLOOD CERTIFICATION:

THIS PROPERTY IS NOT LOCATED WITHIN ANY PRESENTLY ESTABLISHED 100-YEAR FLOOD PLAIN, AS SHOWN BY THE FEDERAL MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP FOR THE CITY AND COUNTY OF DENVER COMMUNITY PANEL NUMBER 08004600926H, DATED SEPTEMBER 20, 2013. PER THE FLOOD MAP REFERENCED, THE SITE IS IN ZONE X (OUTSIDE 0.2% OF FLOOD) BASED ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) ELEVATIONS.

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

AGENCY APPROVALS

BUILDING PERMIT – TOWN OF PARKER	XX/XX/2021
PWSD – TOWN OF PARKER	XX/XX/2021
FIRE REVIEW – TOWN OF PARKER	XX/XX/2021
HEALTH DEPARTMENT – TOWN OF PARKER	XX/XX/2021
SITE PLAN SUBMITTAL – TOWN OF PARKER	XX/XX/2021
STATE UNDERGROUND STORAGE TANKS PERMIT	12/31/2020
APEN PERMIT	XX/XX/2021
STATE STORMWATER PERMIT	01/06/2021
CBMP – TOWN OF PARKER	XX/XX/2021

GENERAL SITE DESCRIPTION

PROJECT DESCRIPTION:
A 8-MPD AUTOMOBILE GASOLINE FILLING STATION WITH A 2,824 SQUARE FOOT CONVENIENCE STORE.

CURRENT ZONING:
ZONING FOR THIS PROPERTY IS PD-C2 (PLANNED DEVELOPMENT – COMMERCIAL).

ACCESS:
THE PRINCIPAL MEANS OF ACCESS IS AN ACCESS ON THE SOUTHERN SIDE OF THE SITE FROM SOUTH PARKER ROAD AND AN ACCESS ON THE WESTERN SIDE OF THE SITE FROM INTERNAL DRIVE.

NOTICE TO BIDDERS:

ALL QUESTIONS REGARDING THE PREPARATION OF THE GENERAL CONTRACTOR'S BID SHALL BE DIRECTED THROUGH MURPHY'S CONSTRUCTION WEBSITE (HTTPS://MURPHYUSA.PROJECTMATES.COM/) INCLUDING Q&A, RFI'S, BID SUBMISSION, CHANGE ORDER REQUESTS, ETC. ONCE AWARDED THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S PROJECT MANAGER. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.

SHEET NO. C-0

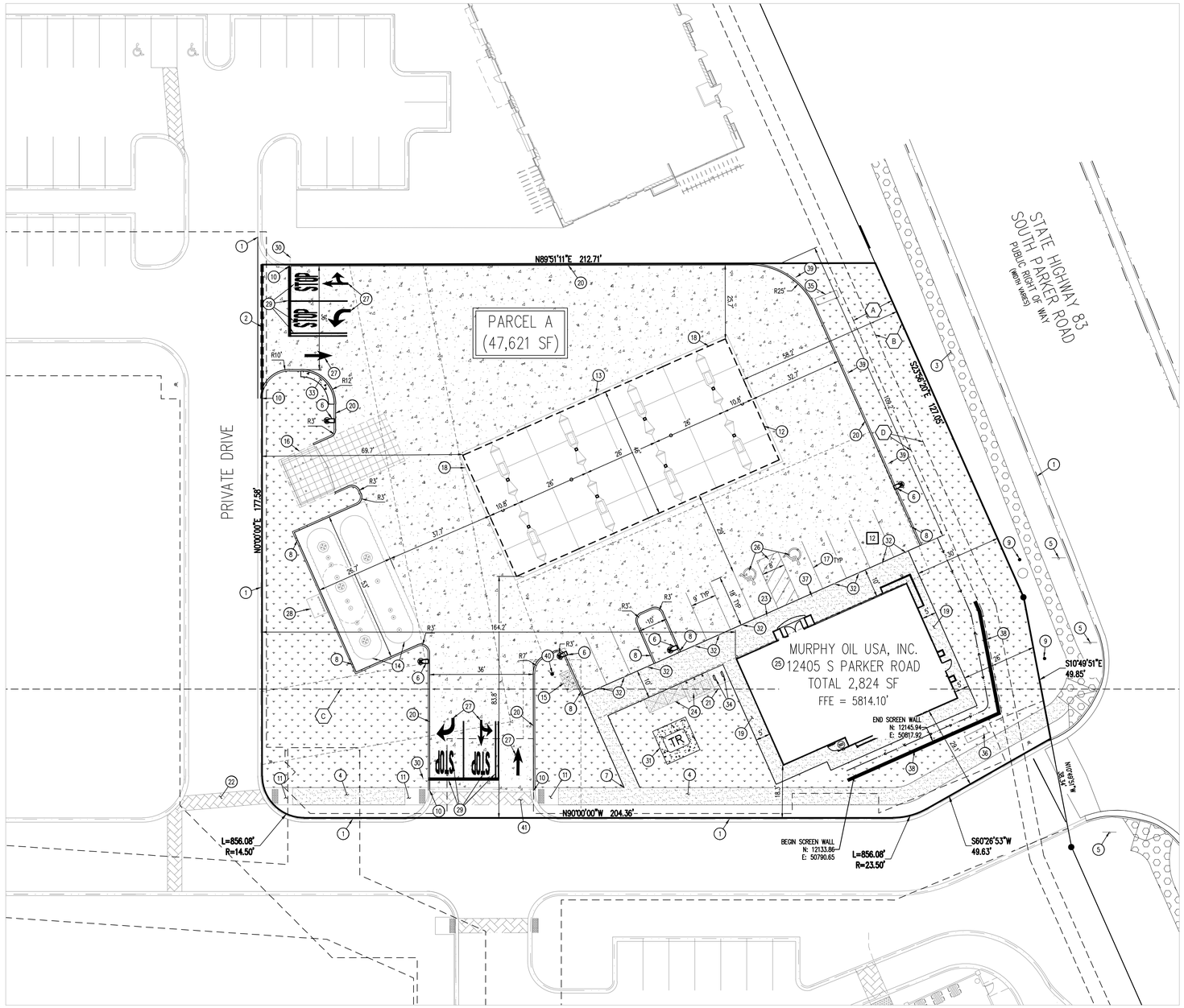
COLORADO LICENSED
58388
MICHAEL E. MAY
PROFESSIONAL ENGINEER
08/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

COVER SHEET
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730



PARKING INFORMATION: MURPHY OIL							
DESCRIPTION	BUILDING AREA (SF)	REQUIRED:					
		RATIO	SPACES				
			REGULAR	ACCESSIBLE	VAN ACCESSIBLE	UNDER CANOPY	TOTAL
MURPHY OIL	2,824	1 SPACE / 250 SF GFA	11	1	0	N/A	12
STALL DIMENSIONS:		PROVIDED:					
			SPACES				
9' X 18'			REGULAR	ACCESSIBLE	VAN ACCESSIBLE	UNDER CANOPY	TOTAL
			10	1	1	N/A	12
NO. OF FUEL ISLANDS: 8 NO. OF VEHICLE FUELING POINTS: 16							

N

0 10 20

SCALE: 1"=20'

LEGEND

- PROPERTY LINE
- EASEMENT BOUNDARY LINE
- SAWCUT LIMITS
- EXISTING SIGN
- PROPOSED SIGN
- PROPOSED BOLLARD
- PROPOSED STANDARD DUTY CONCRETE PAVEMENT
- EXISTING CONCRETE PAVEMENT
- PROPOSED HEAVY DUTY CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LANDSCAPING (REF LANDSCAPE PLAN)
- PROPOSED SITE LIGHTING
- 12 PARKING COUNT

GENERAL SITE NOTES

1. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB RETURN RADII SHALL BE 3', AS SHOWN TYPICAL ON THIS PLAN, UNLESS OTHERWISE NOTED.
3. UNLESS OTHERWISE SHOWN, CALLED OUT OR SPECIFIED HEREON:
   - 3.1. ALL CURB AND GUTTER ADJACENT TO PAVING SHALL BE INSTALLED PER DETAIL.
   - 3.2. PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE PAVING PLAN OVER THE ENTIRE PARKING LOT AREA AND ALL APPROACH DRIVES.
   - 3.3. SEE ASSOCIATED PLANS FOR CANOPY, COLUMN, PUMP ISLAND DETAILS AND LAYOUT.
4. CONTRACTOR SHALL BEGIN CONSTRUCTION OF ANY LIGHT POLE BASES FOR RELOCATED LIGHT FIXTURES AND RELOCATION OF ELECTRICAL SYSTEM AS SOON AS DEMOLITION BEGINS. CONTRACTOR SHALL BE AWARE THAT INTERRUPTION OF POWER TO ANY LIGHT POLES OR SIGNS SHALL NOT EXCEED 24 HOURS.
5. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED/SODDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL PURCHASE AND INSTALL A MAILBOX AND SHALL COORDINATE LOCATION OF MAILBOX WITH MURPHY CONSTRUCTION MANAGER AND/OR ON-SITE REPRESENTATIVE AND LOCAL POSTMASTER.
7. ALL PROPOSED PAVEMENT STRIPING OR MARKINGS SHALL FOLLOW THE SPECIFICATIONS FOR PAINT INCLUDED IN DETAIL 10A.
8. REMOTE TANK VENTS RUN UP EASTERN CANOPY COLUMN.

SETBACK TABLE	
BUILDING SETBACK (FRONT)	25'
BUILDING SETBACK (SIDE)	25'
REAR	0'
PARKING SETBACK	20'

IMPERVIOUS SITE RATIO (ISR)				
	PRE-CONSTRUCTION		POST-CONSTRUCTION	
AREA	SQUARE FEET	%	SQUARE FEET	%
IMPERVIOUS (ROOF AND PAVING)	2,267	4.8%	35,225	74.0%
GREENSPACE	45,354	95.2%	12,396	26.0%
GROSS SITE	47,621	100.0%	47,621	100.0%

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CONTRACTOR SHALL BE RESPONSIBLE FOR AND HIRE A COLORADO REGISTERED LAND SURVEYOR TO ESTABLISH PROPERTY CORNERS, BUILDING CORNERS, CANOPY, ETC. AS REQUIRED FOR CONSTRUCTION LAYOUT.

CONTRACTOR TO ENSURE THE LIGHT POLES AND SIGNS ARE AT LEAST 2' FROM THE BACK OF THE CURB TO PREVENT THE VEHICLES STRIKING THE LIGHT POLE OR SIGN.

CONTRACTOR IS TO ENSURE THAT THE CONSTRUCTION FENCE ENCOMPASSES THE ENTIRE WORK AREA (RE: DETAIL 2F).

SEE SHEET C-6 FOR BUILDING ROOF DRAINAGE AND CANOPY DRAINAGE.

THESE DRAWINGS DO NOT INCLUDE COMPONENTS FOR CONSTRUCTION SAFETY.

ZONING: PD-C2

EASEMENT SCHEDULE

- (A) PERMANENT DRAINAGE EASEMENT (REC NO. 2004034896)
- (B) 10' UTILITY EASEMENT (REC NO. 2004113377)
- (C) EXCEPTION 12 & EXCEPTION 13 BOUNDARY (APPROXIMATE LOCATION) (BK 1227, PG 2338; BK 1284, PG 1957; BK 1290, PG 1455-1459)
- (D) ADDITIONAL 5' UTILITY EASEMENT BY DEVELOPER PER REFERRAL SP18-047

SCHEDULE

1. EXISTING CURB AND GUTTER TO REMAIN
2. SAWCUT EXISTING ASPHALT AT NEW DRIVEWAY ACCESS
3. EXISTING CONCRETE SIDEWALK TO REMAIN
4. PROPOSED AS PART OF MDP CONCRETE SIDEWALK INSTALLED BY DEVELOPER (REFERENCE DEVELOPER'S PLANS)
5. EXISTING SIGN TO REMAIN
6. PROPOSED SITE LIGHT POLE. REFERENCE PHOTOMETRIC PLANS FOR POLE BASE DETAIL, FIXTURE TYPE, AND MOUNTING DETAIL
7. CONNECTION TO EXISTING SIDEWALK
8. TRANSITION FROM 0" TO 6" CURB
9. EXISTING BOLLARD TO REMAIN
10. MATCH EXISTING CURB AT NEAREST CONCRETE JOINT
11. PROPOSED AS PART OF MDP CONCRETE RAMP INSTALLED BY DEVELOPER
12. PROPOSED OVERHEAD CANOPY (REFERENCE ARCHITECTURAL PLANS)
13. EDGE OF CONCRETE SLAB UNDERNEATH THE CANOPY
14. PROPOSED UNDERGROUND STORAGE TANKS (REFERENCE TANK & PIPING PLANS)
15. PROPOSED AIR VACUUM UNIT WITH 4'X7' CONCRETE SLAB (REFERENCE SITE DETAIL 21G)
16. PROPOSED 6' TALL TRASH ENCLOSURE. DRILL (4) 3/4" DIA. X 3' DEEP HOLES (1) EACH FOR OPEN & CLOSED POSITION OF GATES TO BE USED ON BOTH SIDES OF GATES (REFERENCE SITE DETAIL 2E AND 2G)
17. PROPOSED 4" YELLOW PARKING STALL STRIPING (REFERENCE SITE DETAILS)
18. PROPOSED PRICE SIGN PER APPROVED ELEVATION
19. PROPOSED SIDEWALK AROUND BUILDING AND IN FRONT OF PARKING (REFERENCE SITE DETAIL 3K)
20. PROPOSED INTEGRAL CONCRETE CURB (REFERENCE SITE DETAIL 1A)
21. PROPOSED 7'X10' CONCRETE SLAB FOR PROPANE TANKS (REFERENCE SITE DETAIL 21U)
22. PROPOSED AS PART OF MDP STAMPED CONCRETE CROSSWALK INSTALLED BY DEVELOPER (REFERENCE DEVELOPER'S PLANS)
23. PROPOSED ACCESSIBLE PARKING SIGN MOUNTED ON BOLLARD (REFERENCE SITE DETAIL 9V AND 5B)
24. PROPOSED 5'X7' CONCRETE PAD (2 TOTAL) FOR ICE UNIT (REFERENCE SITE DETAIL 21P)
25. PROPOSED 2,824 SQUARE FOOT MURPHY EXPRESS KIOSK (REFERENCE ARCHITECTURAL PLANS)
26. PROPOSED BLUE ACCESSIBLE PARKING SYMBOL AND STRIPING (REFERENCE SITE DETAIL 9U)
27. PROPOSED DIRECTIONAL TRAFFIC FLOW ARROW (REFERENCE SITE DETAIL 10A)
28. PROPOSED REMOTE TANK VENTS (REFERENCE TANK & PIPING PLANS)
29. PROPOSED "STOP" BAR, 20' 4"-WIDE TRAFFIC YELLOW LANE STRIPING, AND "STOP" LETTERING (REFERENCE SITE DETAIL 10B)
30. PROPOSED "STOP" SIGN (REFERENCE SITE DETAIL 5B AND 12G)
31. PROPOSED CONCRETE TRANSFORMER PAD (REFERENCE UTILITY PLAN)
32. PROPOSED SINGLE GUARD POST (REFERENCE SITE DETAIL 5F AND 20K)
33. PROPOSED 2' WIDE CONCRETE BUFFER
34. PROPOSED BICYCLE RACK (2 SPOTS) (REFERENCE SITE DETAILS)
35. PROPOSED MURPHY MONUMENT SIGN
36. PROPOSED DEVELOPER MONUMENT SIGN
37. PROPOSED VAN ACCESSIBLE PARKING SIGN MOUNTED ON BOLLARD (REFERENCE SITE SITE DETAIL 9V AND 5B)
38. PROPOSED WALL (REFERENCE GRADING PLAN FOR DETAILS)
39. PROPOSED "NO PARKING FIRE LANE" SIGN (REFERENCE SITE DETAILS)
40. PROPOSED FIRE HYDRANT (REFERENCE UTILITY PLAN FOR DETAILS)
41. STAMPED CONCRETE TO BE REPLACED (REFERENCE SITE DETAILS)

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2:#5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

SHEET NO. C-1

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/01/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

SITE PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
MURPHY USA

ALTA/NSPS LAND TITLE SURVEY

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.,
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

TITLE COMMITMENT/REPORT INFORMATION

THIS MAP DOES NOT REPRESENT A TITLE SEARCH BY GALLOWAY & COMPANY, INC. TO DETERMINE OWNERSHIP OR THIS TRACT, VERIFY THE DESCRIPTION SHOWN, VERIFY THE COMPATIBILITY OF THIS DESCRIPTION WITH THAT OF ADJACENT TRACTS OR VERIFY EASEMENTS OF RECORD. FOR ALL INFORMATION REGARDING EASEMENTS, RIGHT OF WAY OR TITLE THEREOF, GALLOWAY & COMPANY INC. RELIED UPON THE INFORMATION OR TITLE COMMITMENT/REPORT PROVIDED AT THE TIME OF SURVEY BY THE CLIENT.

TITLE COMMITMENT PROVIDED BY CLIENT AND PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO. NCS–889354–CHAR, WITH AN EFFECTIVE DATE OF FEBRUARY 01, 2018 AT 5:00 P.M.

1. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS, BUT WHICH COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF.
(NONE OBSERVED AT TIME OF SURVEY, EXCEPT AS SHOWN)

2. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS.
(NONE OBSERVED AT TIME OF SURVEY, EXCEPT AS SHOWN)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGE IN AREA, ENCROACHMENTS, AND ANY FACTS WHICH A CORRECT SURVEY AND INSPECTION OF THE LAND WOULD DISCLOSE, AND WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS.
(NONE OBSERVED AT TIME OF SURVEY, EXCEPT AS SHOWN)

4. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN IN THE PUBLIC RECORDS.
(NOT SURVEY RELATED)

5. ANY AND ALL UNPAID TAXES, ASSESSMENTS AND UNREDEEMED TAX SALES.
(NOT SURVEY RELATED)

6. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT SHOWN BY THE PUBLIC RECORDS.
(NOT SURVEY RELATED)

7. THE RIGHT OF A PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES, AS RESERVED IN UNITED STATES PATENT RECORDED MARCH 22, 1892 IN BOOK P AT PAGE 113.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

8. RIGHT–OF–WAY GRANTED TO THE COLORADO TELEPHONE COMPANY IN DEED RECORDED DECEMBER 19, 1905 IN BOOK 34 AT PAGE 339 AND ASSIGNED TO THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY IN DEED RECORDED JULY 31, 1911 IN BOOK 359 AT PAGE 547.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

9. RESERVATION OF AN UNDIVIDED ONE–HALF INTEREST IN OIL, GAS AND OTHER MINERALS AS RESERVED IN DEED RECORDED JANUARY 3, 1953 IN BOOK 108 AT PAGE 164, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.
(PROPOSED LOT MAY BE SUBJECT TO THIS EXCEPTION, DOCUMENT IS ILLEGIBLE)

10. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS, EASEMENTS AND AGREEMENTS AS SET FORTH IN THE EASEMENT DEED TO THE PARKER WATER AND SANITATION DISTRICT RECORDED MARCH 13, 1973 IN BOOK 243 AT PAGE 418.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

11. RIGHT–OF–WAY, WHETHER IN FEE OR EASEMENT ONLY, FOR SANITARY SEWER PIPELINE AND INCIDENTAL PURPOSES, AS GRANTED TO PARKER WATER AND SANITATION DISTRICT, BY THE EASEMENT DEED RECORDED MARCH 15, 1973 IN BOOK 243 AT PAGE 521.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

12. ANY TAX, LIEN, FEE OR ASSESSMENT BY REASON OF INCLUSION OF SUBJECT PROPERTY IN THE THE PARKER WATER AND SANITATION DISTRICT, AS EVIDENCED BY INSTRUMENT RECORDED NOVEMBER 1, 1994 IN BOOK 1227 AT PAGE 2338.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, PLOTTED HEREON)

13. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE NON–TRIBUTARY GROUND WATER CONSENT LAND OWNERSHIP STATEMENT RECORDED AUGUST 30, 1995 IN BOOK 1284 AT PAGE 1957, AND SEPTEMBER 27, 1995 IN BOOK 1290 AT PAGES 1455, 1457 AND 1459.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, PLOTTED HEREON)

14. ANY TAX, LIEN, FEE OR ASSESSMENT BY REASON OF INCLUSION OF SUBJECT PROPERTY IN THE THE PARKER WATER AND SANITATION DISTRICT, AS EVIDENCED BY INSTRUMENT RECORDED NOVEMBER 2, 1984 IN BOOK 546 AT PAGE 540.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

15. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE LANDOWNERSHIP AFFIDAVIT AND CONSENT TO APPROPRIATE, USE OR CLAIM GROUNDWATER RECORDED SEPTEMBER 20, 1985 IN BOOK 596 AT PAGE 193.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

16. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE FINDINGS, JUDGMENT AND DECREE CONCERNING THE APPLICATION FOR APPROVAL OF PLAN FOR AUGMENTATION RECORDED AUGUST 4, 1997 IN BOOK 1452 PAGE 926.
(PROPOSED LOT MAY BE SUBJECT TO THIS EXCEPTION, NO CLEARLY DEFINED AREA, THE DOCUMENT CALLS OUT LOCATIONS OF WELL LOCATIONS, NONE ARE SHOWN WITHIN THE PROPOSED LOT)

17. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE RESOLUTION NO. R–82–34 RECORDED APRIL 28, 1982 IN BOOK 440 AT PAGE 204 AND RE–RECORDED FEBRUARY 8, 1983 IN BOOK 465 AT PAGE 324.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

18. ANY TAX, LIEN, FEE OR ASSESSMENT BY REASON OF INCLUSION OF SUBJECT PROPERTY IN THE CHERRY CREEK BASIN AUTHORITY, AS EVIDENCED BY INSTRUMENT RECORDED MAY 6, 1988 IN BOOK 790 AT PAGE 718.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

19. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS, EASEMENTS AND AGREEMENTS AS SET FORTH IN THE STANDARD AVIATION AND HAZARD EASEMENT IN FAVOR OF THE ARAPAHOE COUNTY PUBLIC AIRPORT AUTHORITY RECORDED SEPTEMBER 6, 2001 IN BOOK 2124 AT PAGE 522.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

20. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE ORDINANCE NO. 3.1936 RECORDED APRIL 5, 2002 IN BOOK 2304 AT PAGE 1651.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

21. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS, EASEMENTS AND AGREEMENTS AS SET FORTH IN THE DRAINAGE EASEMENT AGREEMENT BY AND BETWEEN PARKER AUTOMOTIVE PLAZA, LLLP AND THE TOWN OF PARKER RECORDED APRIL 7, 2004 AT RECEPTION NO. 2004034896.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, PLOTTED HEREON)

22. ANY TAX, LIEN, FEE OR ASSESSMENT BY REASON OF INCLUSION OF SUBJECT PROPERTY IN THE PARKER AUTOMOTIVE METROPOLITAN DISTRICT, AS EVIDENCED BY INSTRUMENTS RECORDED JUNE 28, 2004 AT RECEPTION NO. 2004066836 AND MAY 21, 2004 AT RECEPTION NO. 2004052371.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, DOCUMENT PARCEL B & PARCEL C COVER THE PROPOSED LOT, BLANKET IN NATURE)

23. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE DEVELOPMENT PLAN RECORDED MARCH 19, 2004 AT RECEPTION NO. 2004027563.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

24. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS, EASEMENTS AND AGREEMENTS AS SET FORTH IN THE EASEMENT AGREEMENT RECORDED JULY 26, 2004 AT RECEPTION NO. 2004077572.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

25. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS, EASEMENTS AND AGREEMENTS AS SET FORTH IN THE EASEMENT AGREEMENT RECORDED FEBRUARY 11, 2003 AT RECEPTION NO. 2003018240.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

26. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS, EASEMENTS AND AGREEMENTS AS SET FORTH IN THE EASEMENT AGREEMENT RECORDED FEBRUARY 11, 2003 AT RECEPTION NO. 2003018241.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

27. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE ORDINANCE NO. 2.187 RECORDED MAY 10, 2007 AT RECEPTION NO. 2007038423, AND MAY 11, 2007 AT RECEPTION NO. 2007038637.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION, AREA ADDED IS OUTSIDE PROPOSED LOT, BUT IS ADDED TO THE TOTAL ANNEXATION ORDINANCE)

28. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE ORDINANCE NO. 3.193.2 RECORDED MAY 10, 2007 AT RECEPTION NO. 2007038425.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

29. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE WATER RIGHTS DECREE WITH PARKER WATER AND SANITATION DISTRICT RECORDED JULY 3, 2006 AT RECEPTION NO. 2006056119.
(PROPOSED LOT MAY BE SUBJECT TO THIS EXCEPTION, NO CLEARLY DEFINED AREA, EXHIBIT WITHIN THE DOCUMENT SHOWS WELL LOCATIONS, NONE ARE SHOWN WITHIN THE PROPOSED LOT)

30. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE ORDINANCE NO. 3.193.3, SERIES OF 2009 RECORDED APRIL 27, 2009 AT RECEPTION NO. 2009030058.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

31. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE PARKER AUTO PLAZA –DEVELOPMENT PLAN RECORDED APRIL 27, 2009 AT RECEPTION NO. 2009030059.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

32. COVENANTS, CONDITIONS, RESTRICTIONS, PROVISIONS, EASEMENTS AND ASSESSMENTS AS SET FORTH IN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR PARKER AUTO PLAZA RECORDED APRIL 11,2005 AT RECEPTION NO. 2005031189, AND AMENDMENT THERETO RECORDED AUGUST 12, 2014 AT RECEPTION NO. 2014045411, BUT OMITTING ANY COVENANT OR RESTRICTION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN, AND ANY AND ALL AMENDMENTS, ASSIGNMENTS, OR ANNEXATIONS THERETO.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

33. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE SUBDIVISION AGREEMENT RECORDED NOVEMBER 4, 2004 AT RECEPTION NO. 2004113378, AND FIRST AMENDMENT THERETO RECORDED FEBRUARY 27, 2006 AT RECEPTION NO. 2006016153.NOTE: AFFIDAVIT OF FACT AFFECTING REAL PROPERTY IN CONNECTION THEREWITH RECORDED JANUARY 12, 2015 AT RECEPTION NO. 2015001808.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

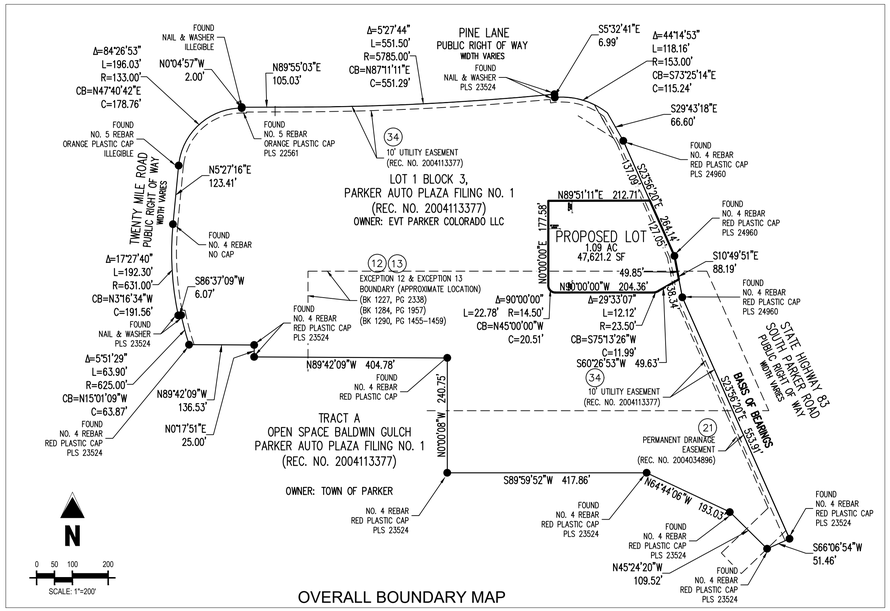
34. EASEMENTS, NOTES, COVENANTS, RESTRICTIONS AND RIGHTS–OF–WAY AS SHOWN ON THE PLAT OF PARKER AUTO PLAZA FILING NO. 1, RECORDED NOVEMBER 4, 2004 AT RECEPTION NO. 2004113377.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, PLOTTABLE ITEMS SHOWN HEREON)

35. AN EASEMENT FOR SLOPE AND INCIDENTAL PURPOSES GRANTED TO TOWN OF PARKER, AS SET FORTH IN AN INSTRUMENT RECORDED APRIL 7, 2004 AT RECEPTION NO. 2004034894.
(PROPOSED LOT IS NOT SUBJECT TO THIS EXCEPTION)

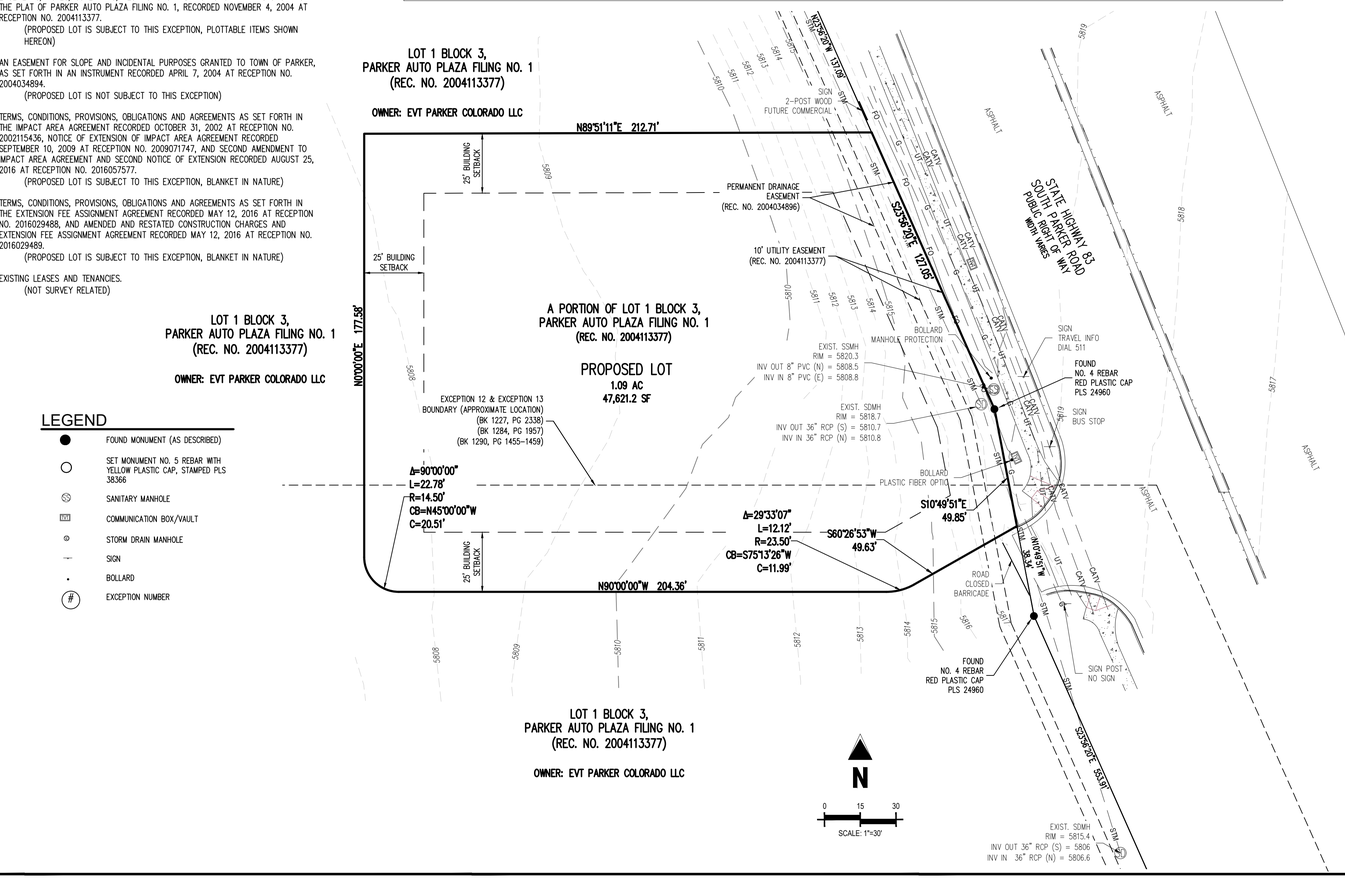
36. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE IMPACT AREA AGREEMENT RECORDED OCTOBER 31, 2002 AT RECEPTION NO. 2002115436, NOTICE OF EXTENSION OF IMPACT AREA AGREEMENT RECORDED SEPTEMBER 10, 2009 AT RECEPTION NO. 2009071747, AND SECOND AMENDMENT TO IMPACT AREA AGREEMENT AND SECOND NOTICE OF EXTENSION RECORDED AUGUST 25, 2016 AT RECEPTION NO. 2016057577.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

37. TERMS, CONDITIONS, PROVISIONS, OBLIGATIONS AND AGREEMENTS AS SET FORTH IN THE EXTENSION FEE ASSIGNMENT AGREEMENT RECORDED MAY 12, 2016 AT RECEPTION NO. 2016029488, AND AMENDED AND RESTATED CONSTRUCTION CHARGES AND EXTENSION FEE ASSIGNMENT AGREEMENT RECORDED MAY 12, 2016 AT RECEPTION NO. 2016029489.
(PROPOSED LOT IS SUBJECT TO THIS EXCEPTION, BLANKET IN NATURE)

38. EXISTING LEASES AND TENANCIES.
(NOT SURVEY RELATED)

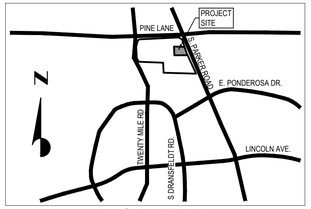


OVERALL BOUNDARY MAP



LEGEND

- FOUND MONUMENT (AS DESCRIBED)
- SET MONUMENT NO. 5 REBAR WITH YELLOW PLASTIC CAP, STAMPED PLS 38366
- SANITARY MANHOLE
- COMMUNICATION BOX/VAULT
- STORM DRAIN MANHOLE
- SIGN
- BOLLARD
- (#) EXCEPTION NUMBER



VICINITY MAP
NOT TO SCALE

PROPERTY DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.,
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

GENERAL NOTES

1) ACCESS TO THE PROPERTY IS OBTAINED FROM A CURB CUT ON SOUTH PARKER ROAD FROM THE EAST
2) FIELD WORK WAS COMPLETED ON: APRIL 2, 2019.
3) UTILITY NOTE: THE LOCATION OF UTILITIES SHOWN HEREON WAS ESTABLISHED FROM SURFACE EVIDENCE, EXISTING UTILITY MARKERS AND UTILITY LOCATES FROM A UTILITY CONTRACTOR. THE EXACT LOCATION OF BURIED UTILITIES IS UNCERTAIN. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHOULD CONTACT THE UTILITY NOTIFICATION CENTER. THE SURVEYOR MAKES NO GUARANTEE EITHER EXPRESSED OR IMPLIED THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION DEPICTED ALTHOUGH THE UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE AT THE TIME OF THE SURVEY. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
4) THIS MAP OR PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ENTITY NAMED IN THE SURVEYOR'S STATEMENT HEREON. SAID STATEMENT DOES NOT EXTEND TO ANY UNNAMED PERSON WITHOUT AN EXPRESS RE–STATEMENT BY THE SURVEYOR.
5) PER THE FEMA FLOOD INSURANCE RATE MAPS (FIRM), MAP NO. 08035C0067G, HAVING AN MAP REVISED DATE OF MARCH 16, 2016, INDICATES THE SUBJECT PROPERTY TO BE DESIGNATED AS ZONE X (OUTSIDE 0.2% CHANCE OF FLOOD). THIS SURVEY MAKES THIS STATEMENT BY GRAPHIC PLOTTING ONLY. THE SURVEYOR RECOMMENDS A FLOOD STUDY IF MORE INFORMATION IS REQUIRED.
6) ALL LINEAL MEASUREMENTS SHOWN ARE GROUND DISTANCES AND U.S. SURVEY FEET.
7) EASEMENTS AND PUBLIC DOCUMENTS SHOWN OR NOTED ON THIS SURVEY WERE EXAMINED AS TO LOCATION AND PURPOSE AND WERE NOT EXAMINED AS TO RESTRICTIONS, EXCLUSIONS, CONDITIONS, OBLIGATIONS, TERMS OR AS THE RIGHT TO GRANT THE SAME.
8) CAUTION: THE SURVEYOR PREPARING THIS MAP WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THIS MAP. ALL CHANGES TO THIS EXHIBIT MUST BE APPROVED IN WRITING BY THE SURVEYOR IN CHARGE.
9) SITE WAS VACANT AT THE TIME OF SURVEY.
10) THERE WAS NO OBSERVABLE EVIDENCE OR CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS AT THE TIME OF SURVEY.
11) NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES WERE DISCOVERED AT THE TIME OF SURVEY.
12) NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCE MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. C.R.S. 13–80–105(3)(A).
13) THERE WERE NO PARKING LOTS OR SPACES ON THIS SITE AT TIME OF SURVEY.
14) THERE WERE NO FIELD DELINEATION OF WETLANDS OBSERVED AT THE TIME OF SURVEY.
15) THERE WERE NO BUILDINGS OR PARTY WALLS ON SITE AT TIME OF SURVEY.
16) OFFSITE EASEMENTS THAT BENEFIT THE SUBJECT PROPERTY ARE SHOWN HEREON.
17) NO ZONING REPORT PROVIDED BY THE CLIENT AT TIME OF SURVEY.
18) PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT OF $_____ TO BE IN EFFECT THROUGHOUT THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST, BUT THIS ITEM SHALL NOT BE ADDRESSED ON THE FACE OF THE PLAT OR MAP.
19) PARCEL IS ZONED IS "PLANNED DEVELOPMENT– COMMERCIAL (PD–C)", *INFORMATION PROVIDED BY OTHERS*
20) FOR LOTS WHICH ABUT PARKER RD., THE FRONT YARD SETBACK, AND AT LEAST ONE (1) SIDE YARD SETBACK SHALL BE CONSIDERED A "BUILD–TO" LINES. AT LEAST THREE POINTS OF THE BUILDING MUST TOUCH THIS SETBACK LINE, AND AT LEAST 30% OF THE BUILDING FOOTPRINT AREA MUST BE WITHIN 40 FT. OF THE SETBACK LINE. *INFORMATION PROVIDED BY OTHERS*

BASIS OF BEARINGS

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

BENCHMARK

ELEVATIONS ARE BASED ON A DOUGLAS COUNTY CONTROL MONUMENT, STATION NAME: CRAIN, BEING A BRASS DISK LOCATED AT 125 FEET NORTH OF THE CENTERLINE OF A DRIVEWAY, 84 FEET SOUTH OF A DOUBLE 36 IN CULVERT, 25 FEET WEST OF THE EDGE OF PARKER ROAD, AND 25 FEET EAST OF THE WEST RIGHT OF WAY FENCE.

ELEVATION = 5734.25 FEET (NAVD 88) PUBLISHED BY DOUGLAS COUNTY

SURVEYOR'S CERTIFICATE:

TO: MURPHY OIL USA, INC., A DELAWARE CORPORATION AND FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEY, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(B), 7(A), 7(B1), 7(B2), 7(C), 8, 9, 10(A), 11, 13, 14, 16, 17, 18, 19, AND 20 OF TABLE A THEREOF.

COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
BRIAN J. DENNIS
38069
04/01/2020

BRIAN J. DENNIS
COLORADO PROFESSIONAL LAND SURVEYOR NO. 38069
PROJECT NO.:MOC000046.10
FOR AND ON BEHALF OF GALLOWAY & COMPANY, INC.

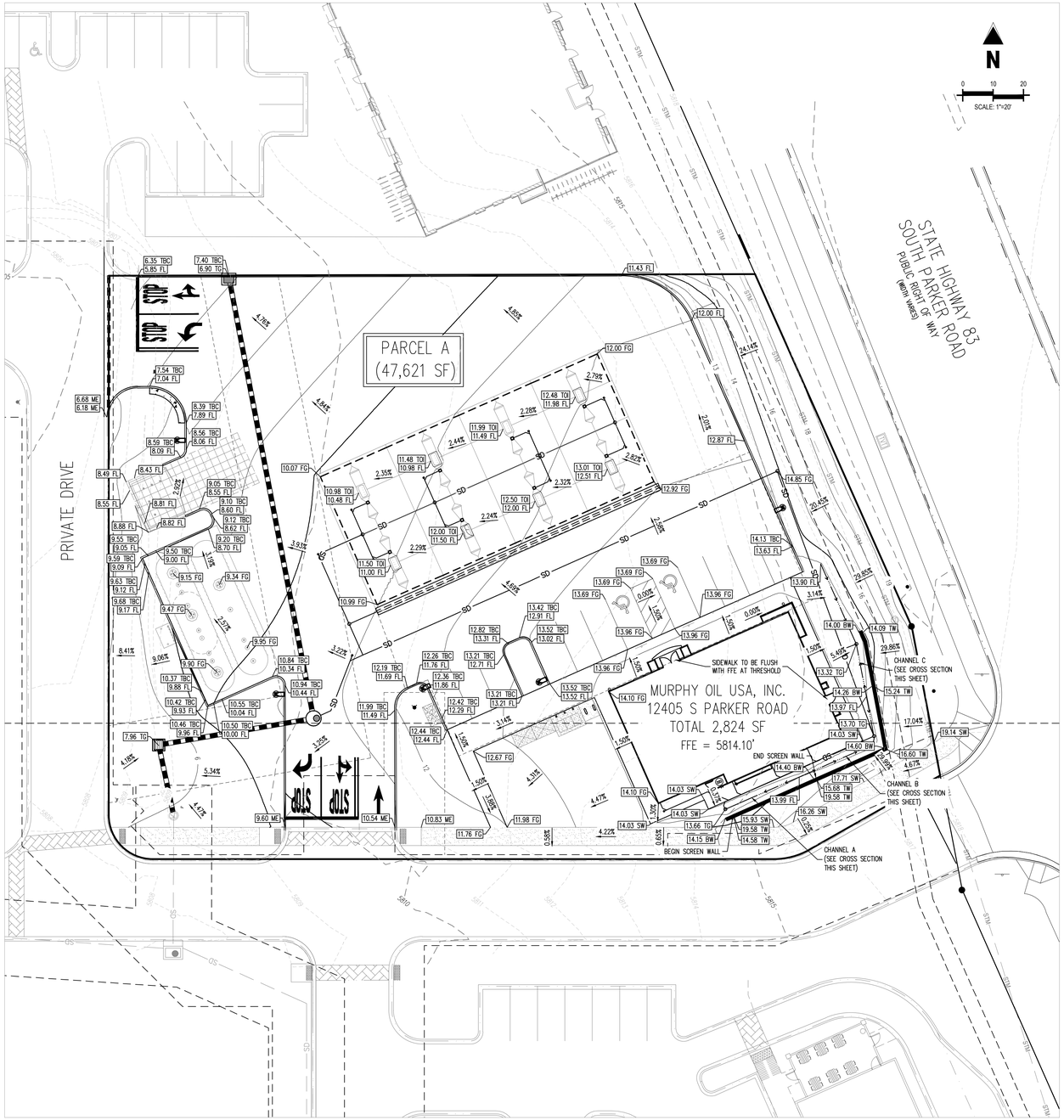
Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

ALTA/NSPS LAND TITLE SURVEY
A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10,
TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.,
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.
ADDRESS: 12405 SOUTH PARKER ROAD, PARKER, COLORADO

#	Date	Issue / Description	Init.
1	04/16/19	ADD SETBACKS & ZONING	BWD
2	04/01/20	REVISE PLS	BJD

Project No:	MOC000046.10
Drawn By:	BWD / BC/ EVH
Checked By:	BWD/BJD
Date:	2019-04-10

H:\Master\SURVEY\Parker - MOC000046.20 - Parker & Pine\Survey\ACAD\MOC046.10 - ALTA.dwg, Brian Dennis, 4/1/2020



SOIL PREPARATION NOTE

SOIL PREPARATION SHALL BE PER RECOMMENDATIONS FROM A GEOTECHNICAL ENGINEERING REPORT PREPARED FOR MURPHY OIL USA, INC., AT PARKER ROAD & PINE LANE, PARKER, COLORADO AS FOLLOWS:

GEOTECHNICAL ENGINEER: UNITED CONSULTING

PROJECT NO.: MPOIL-19-CO-02305-02

THE CONTRACTOR MUST FULLY REVIEW THESE REPORTS PRIOR TO CONSTRUCTION. INFORMATION IN THE GEOTECHNICAL REPORT SUPERSEDES ANY CONFLICTING INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. REFER TO GENERAL STRUCTURAL NOTES FOR SPECIFIC SOIL PREPARATION AT SITE STRUCTURES.

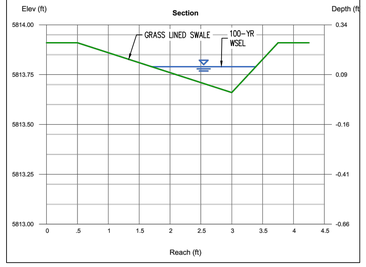
CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

CHANNEL A

Triangular		**Highlighted**	
Side Slopes (z:1)	= 10.00, 3.00	Depth (ft)	= 0.13
Total Depth (ft)	= 0.25	Q (cfs)	= 0.100
		Area (sqft)	= 0.11
Invert Elev (ft)	= 5813.66	Velocity (ft/s)	= 0.91
Slope (%)	= 2.00	Wetted Perim (ft)	= 1.72
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.11
		Top Width (ft)	= 1.69
Calculations		EGL (ft)	= 0.14
Compute by:	Known Q		
Known Q (cfs)	= 0.10		

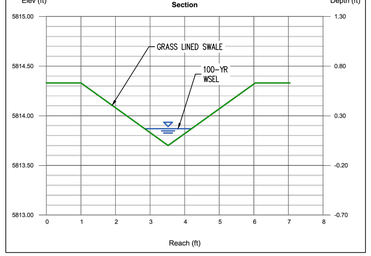


CHANNEL A CROSS SECTION

NOT TO SCALE

CHANNEL B

Triangular		**Highlighted**	
Side Slopes (z:1)	= 4.00, 4.00	Depth (ft)	= 0.17
Total Depth (ft)	= 0.63	Q (cfs)	= 0.135
		Area (sqft)	= 0.12
Invert Elev (ft)	= 5813.70	Velocity (ft/s)	= 1.17
Slope (%)	= 2.00	Wetted Perim (ft)	= 1.40
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.15
		Top Width (ft)	= 1.36
Calculations		EGL (ft)	= 0.19
Compute by:	Known Q		
Known Q (cfs)	= 0.14		



CHANNEL B CROSS SECTION

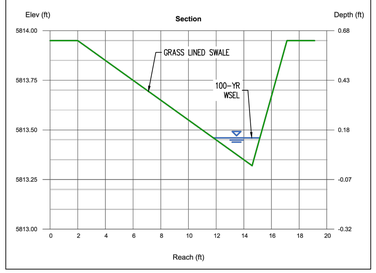
NOT TO SCALE

Channel Report

Hydroflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Aug 3 2021

CHANNEL C

Triangular		**Highlighted**	
Side Slopes (z:1)	= 20.00, 4.00	Depth (ft)	= 0.14
Total Depth (ft)	= 0.63	Q (cfs)	= 0.270
		Area (sqft)	= 0.24
Invert Elev (ft)	= 5813.32	Velocity (ft/s)	= 1.15
Slope (%)	= 2.00	Wetted Perim (ft)	= 3.38
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.13
		Top Width (ft)	= 3.36
Calculations		EGL (ft)	= 0.16
Compute by:	Known Q		
Known Q (cfs)	= 0.27		



CHANNEL C CROSS SECTION

NOT TO SCALE

GRADING LEGEND

5460	EXISTING MAJOR CONTOUR
5280	EXISTING MINOR CONTOUR
65	PROPOSED MAJOR CONTOUR
66	PROPOSED MINOR CONTOUR
	GRASS SWALE CENTERLINE
	PROPERTY LINE
15.00	PROPOSED SPOT ELEVATION
FL	PROPOSED FLOWLINE ELEVATION
FFE	FINISHED FLOOR
TG	TOP OF GRATE
FG	FINISHED GRADE
TBC	TOP BACK OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
ME	MATCH EXISTING
TOI	TOP OF ISLAND
X.XX%	PROPOSED SLOPE ARROW

THESE DRAWINGS DO NOT INCLUDE COMPONENTS FOR CONSTRUCTION SAFETY.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

ALL CASTINGS SHALL BE COATED WITH BLACK ASPHALTIC VARNISH.

GRADING NOTES

1. REQUIREMENTS SHOWN ON SITE PLAN SHALL GOVERN. DRAWINGS AND SPECIFICATIONS SHOWING OTHERWISE NOTWITHSTANDING. CONTRACTOR TO POINT OUT ANY DISCREPANCIES TO THE OWNERS REPRESENTATIVE PRIOR TO BID.
2. CONTRACTOR MUST OBTAIN ALL STATE AND CITY STORMWATER DISCHARGE AND EROSION CONTROL PERMITS PRIOR TO ANY DISTURBANCE AND/OR GRADING ACTIVITY.
3. ALL FILL IN OLD TANK AREAS, OLD BASEMENTS, CESSPOOLS, OTHER EXCAVATIONS AND INSIDE BUILDING TO BE APPROVED BY GEOTECHNICAL ENGINEER.
4. FINAL GRADES ARE SUBJECT TO MINOR CHANGE BY COMPANY REPRESENTATIVE. NO GRADE CHANGES IN EXCESS OF 0.05' WITHOUT COMPANY APPROVAL.
5. ANY FILL MATERIAL REQUIRED TO BRING THE SITE TO GRADE SHALL BE CLEAN FILL DIRT APPROVED BY GEOTECHNICAL ENGINEER AND SHALL BE PLACED AND COMPACTED PER GEOTECHNICAL REPORT RECOMMENDATIONS.
6. SET PROPERTY CORNER PINS IN CONCRETE. IF PROPERTY CORNERS ARE DESTROYED BY CONTRACTOR. THE CONTRACTOR SHALL BEAR THE EXPENSE OF RELOCATION CORNERS BY A REGISTERED SURVEYOR.
7. THIS DESIGN IS BASED ON A SOIL AND FOUNDATION INVESTIGATION. A COPY OF THIS REPORT IS AVAILABLE FOR INSPECTION BY THE CONTRACTORS.
8. ALL SPOT GRADES ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
9. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING DEPOSITION OF ONSITE SEDIMENTS ONTO SURROUNDING PUBLIC STREETS DURING CONSTRUCTION.
10. ALL LANDSCAPING AREAS SHALL BE GRADED TO WITHIN 0.10' WITH COMPANY APPROVED TOP SOIL TO A MINIMUM 6" DEPTH.
11. GENERAL CONTRACTOR TO PROVIDE BARRICADE PROTECTION WITH FLASHING LIGHTS AROUND ALL FOOTINGS, EXCAVATIONS AND ALL OFFSITE WORK.
12. PROPOSED FLOWLINE ELEVATION DOES NOT TAKE INTO ACCOUNT GUTTER DEPRESSION AT INLET.
13. CONTRACTOR RESPONSIBLE FOR ALL WORK NECESSARY FOR FINAL ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY, INCLUDING BUT NOT LIMITED TO AS-BUILT DRAWINGS, INSPECTIONS, TESTING REPORTS AND CERTIFICATIONS.

GENERAL GRADING NOTES

1. PRIOR TO INSTALLATION OF STORM OR SANITARY SEWER, WATER MAIN, OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY, AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSING AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS OR REQUIRED ELEVATIONS FROM THE PLAN PRIOR TO CONSTRUCTION. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE VENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
2. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED/SODDED, FERTILIZED, MULCHED, WATER AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY RELOCATED TREES SHALL BE MAINTAINED UNTIL SUCH POINT AS TREE IS RE-ESTABLISHED. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
4. REFER TO GEOTECHNICAL REPORT FOR SPECIFIC SITE SOIL CONDITIONS AND CONSIDERATIONS.
5. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
6. ALL HDPE PIPE IN SANDY OR HIGHLY EROSIVE, OR EXPANSIVE SOILS SHALL BE N-12 WT IB (OR EQUIVALENT WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4"-48" PIPE SHALL MEET ASTM F2648 (OR AASHTO M252 TYPE S) REQUIREMENTS AND SHALL HAVE A MINIMUM MANNINGS "n" DESIGN VALUE OF 0.012. JOINTS SHALL BE WATERTIGHT ACCORDING TO ASTM D3212 (OR AASHTO M252, M294) REQUIREMENTS. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. JOINT PERFORMANCE, FITTINGS, MATERIAL PROPERTIES AND INSTALLATION SHALL BE DONE PER THE COMPLETE ADS SPECIFICATION FOR ADS N-12 WE IB PIPE FOUND IN THE ADS, INC. DRAINAGE HANDBOOK, LATEST EDITION.
7. ALL OTHER HDPE PIPE SHALL BE N-12 ST IB (OR EQUIVALENT WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4"-48" SHALL MEET ASTM F2648 (OR AASHTO M252 TYPE S OR SP) REQUIREMENTS AND SHALL HAVE A MINIMUM MANNINGS "n" DESIGN VALUE OF 0.012. JOINT PERFORMANCE, FITTINGS, MATERIAL PROPERTIES AND INSTALLATION SHALL BE DONE PER THE COMPLETE ADS SPECIFICATIONS FOR ADS N-12 ST IB PIPE FOUND IN THE ADS, INC. HAND BOOK, LATEST EDITION.
8. IF USING HDPE PERFORATED PIPE FOR SUBSURFACE DRAINAGE AND DETENTION/RETENTION SYSTEMS, THE PERFORATION SHALL MEET THE AASHTO CLASS II STANDARD PERFORATION PATTERN REQUIREMENTS.
9. STORM SEWER LINES 16"-54" DIAMETER ARE TO BE REINFORCED CONCRETE PIPE ACCORDING TO ASTM C-76 TYPE III UNLESS OTHERWISE INDICATED.
10. CORRUGATED METAL PIPE, WHERE SPECIFICALLY SPECIFIED ON PLAN, SHALL BE TYPE II OF AASHTO M 36 GALVANIZED WITH TYPE 3 JOINTS.
11. CONTRACTOR SHALL ESTABLISH GRADES OF FINISH PAVEMENT TO ENSURE PROPER (POSITIVE) DRAINAGE AND PREVENT PUDDLING OF WATER, SPECIALLY IN PEDESTRIAN WALKWAYS, UNPAVED AREAS OF SITE SHALL ALSO BE GRADED FOR POSITIVE DRAINAGE. CONSULT ENGINEER SHOULD THEIR BE CONFLICTS WITH CRITICAL GRADES SHOWN HEREON.
12. CONTRACTOR SHALL VERIFY ACTUAL FINISHED FLOOR ELEVATION AFTER BUILDING SET AND NOTIFY ENGINEER AND PM WITHIN 48 HOURS OF ANY DISCREPANCY.
13. PIPE JOINTS SHALL BE WRAPPED WITH GEOTEXTILE FABRIC (LAPPED 18").

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

SHEET NO. C-3

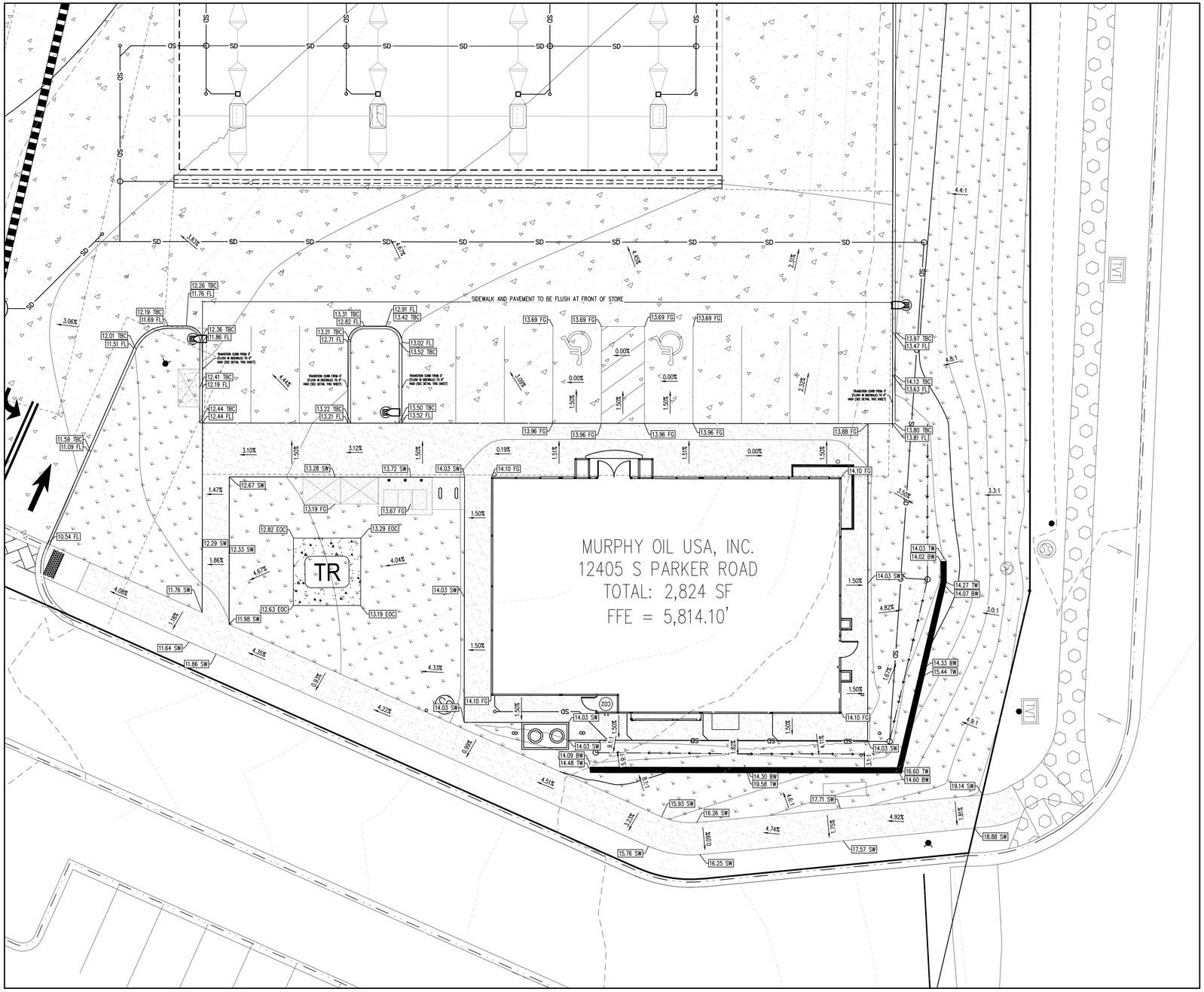
COLORADO LICENSED
MICHAEL E. WAY
58388
08/03/2021
PROFESSIONAL ENGINEER

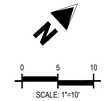
DATE	PRN	JES	KML
08/05/2021	---	PM	DES
OTB			DRW

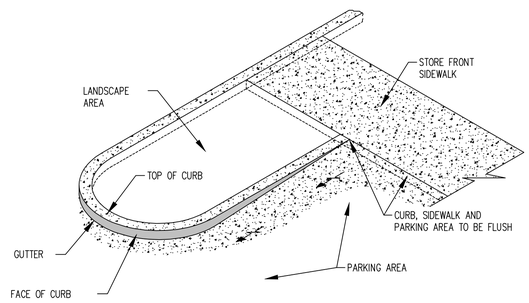
GRADING PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730







CURB ISLAND AT STORE FRONT

N.T.S.

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

SHEET NO. C-3.1

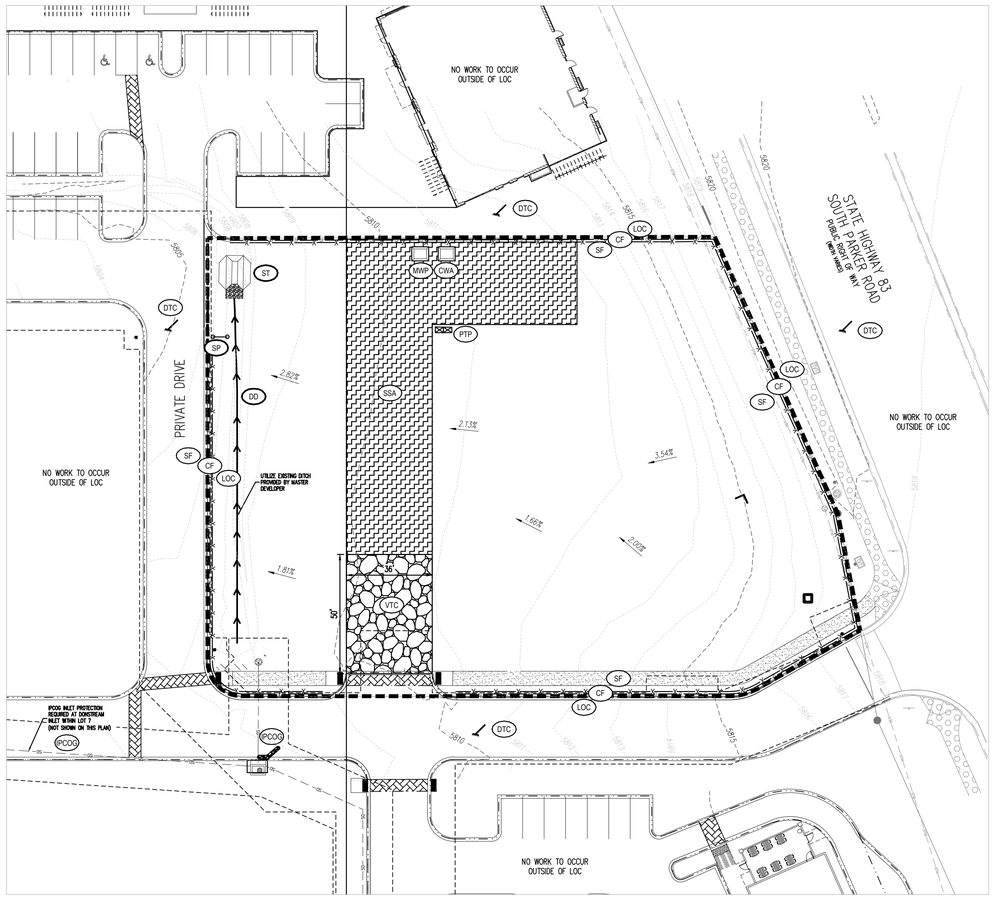
COLORADO LICENSED
MICHAEL E. MAY
58388
08/05/2021
PROFESSIONAL ENGINEER

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

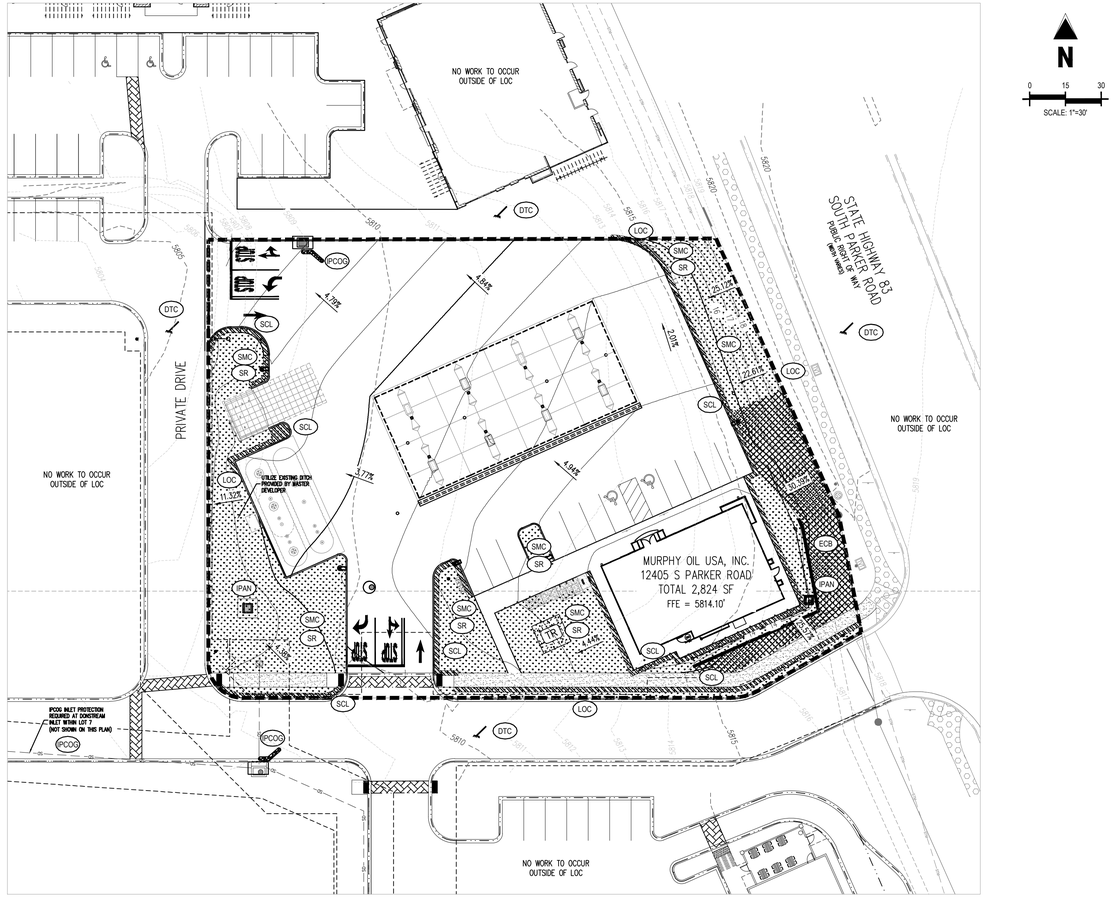
BUILDING ELEVATIONS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730



INITIAL CBMP PLAN



INTERIM/FINAL CBMP PLAN

CBMP LEGEND

- CF — CONSTRUCTION FENCE
- LOC — LIMITS OF CONSTRUCTION
- SF — SILT FENCE
- VTC — CONSTRUCTION VEHICLE ENTRY
- SSA — STABILIZED STAGING AREA
- SMC / SR — SEEDING, MULCH, CRIMPING AND SURFACE ROUGHING
- SCL — SEDIMENT CONTROL LOGS
- ECB — EROSION CONTROL BLANKET
- SP — SITE POSTING (CONTACTS AND PERMITS)
- CWA — CONCRETE WASHOUT
- MWP — MASONRY WORK PROTECTION
- PTP — PORTABLE TOILET PROTECTION
- DTC — DEBRIS TRASH CONTROL
- DD — DIVERSION DITCH
- ST — SEDIMENT TRAP
- IPAN — INLET PROTECTION FOR AREA INLETS NOT IN PAVEMENT
- IPCOG — INLET PROTECTION, CURB ON-GRADE, TYPE R INLET
- IPCOS — INLET PROTECTION, CURB ON-SUMP

AREA OF CONSTRUCTION SITE

TOTAL DISTURBED AREA = 48,008 SF (1.10 ACRES)
TOTAL AREA OF PROJECT SITE (ACRES) = 47,621 SF (1.09 ACRES)

NOTES

1. WEIGHTED WATTLES OR OTHER PERIMETER CONTROLS SUCH AS SILT FENCE OR BERMS ARE NECESSARY AROUND ALL PILES OR ERODIBLE MATERIALS.
2. DANDY SACK OR APPROVED EQUAL PROPRIETARY INLET PROTECTION MAY BE REQUIRED IF THE TOWN'S INSPECTOR FINDS THAT THE INLET PROTECTION FOR AREA INLETS IN PAVEMENT IS NOT ADEQUATE DURING THE DEMOLITION PHASE.
3. DURING DEMOLITION, ALL DIRT AND ERODIBLE DEBRIS MUST BE CLEANED UP THROUGHOUT EACH DAY.
4. LOT PROTECTION IS REQUIRED ON COMMERCIAL LOTS WHEN LANDSCAPING IS NOT POSSIBLE.
5. REFER TO SHEET C-4.2 THROUGH C-4.10 FOR DETAILS.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT AND SHOULD BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. SILT DIKE PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR SHALL BE REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED. MULCH SHALL BE UTILIZED WHERE EROSION OF DENUDED AREAS IS ANTICIPATED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND. PUBLIC RIGHT-OF-WAYS WILL BE CHECKED DAILY FOR MUD. IF MUD IS FOUND, IT WILL BE CLEANED FROM PUBLIC RIGHT-OF-WAYS ON A DAILY BASIS.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. IF THE STONES IN THE GRAVEL INLET SEDIMENTS FILTERS BECOME CLOGGED WITH SEDIMENT AND CAPACITY IS REDUCED BY HALF, THE STONES MUST BE PULLED AWAY, CLEANED AND REPLACE.
7. UPON SOLIDIFYING, CONCRETE SHALL BE REMOVED FROM WASHOUT AREA AND PROPERLY DISPOSED OF TO PREVENT RUNOFF.

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

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ALL EROSION CONTROL MEASURES SHALL BE IN PLACE AS REQUIRED BY THE ENGINEER, PLANS, AND CITY REPRESENTATIVE. SILTATION CONTROL MEASURES SHALL BE INSPECTED PER THE NPDES PERMIT REQUIREMENTS. ANY DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY AND NO FURTHER WORK WILL PROCEED UNTIL SAID DEFICIENCIES ARE CORRECTED TO THE CITY ENGINEER'S APPROVAL.

PROJECT INFORMATION

PROPOSED PROJECT SITE MADE UP OF A SINGLE COMMERCIAL LOT. STORM RUN-OFF FROM SITE WILL PIPE INTO OFF SITE DETENTION SYSTEM WHICH WILL ACCOMMODATE STORM RUN-OFF FOR THE GAS STATION LOT.

PROPOSED PROJECT IS CONSTRUCTING A GAS STATION CONSISTING OF 2,824 SF CONVENIENCE STORE WITH 8 PUMP ISLANDS AND ASSOCIATED PARKING AREA.

ANTICIPATED CONSTRUCTION START DATE IS SEPTEMBER 2021 AND COMPLETION DATE IS DECEMBER 2021.

CONTRACTOR TO TAKE APPROPRIATE MEASURES TO KEEP SEDIMENT FROM ESCAPING SITE AND ALL ACCUMULATED SEDIMENT SHALL BE CLEANED OUT AND REMOVED FROM SITE.

DOWNSTREAM CONDITION WILL NOT BE NEGATIVELY AFFECTED BY PROPOSED DEVELOPMENT.

SEQUENCE OF CONSTRUCTION

PHASE 1
1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
3. CONSTRUCT THE SILT FENCES ON THE SITE.
4. INSTALL ALL PERIMETER SEDIMENT MEASURES.
5. INSTALL ALL TEMPORARY EROSION & SEDIMENT CONTROLS AS NEEDED.
6. CLEAR AND GRUB THE SITE.
7. BEGIN GRADING THE SITE.

PHASE 2
8. START CONSTRUCTION BUILDING PAD AND STRUCTURES.
9. TEMPORARILY SEED DENUDED AREAS.
10. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
11. INSTALL INLET/FLUME PROTECTION DEVICES.
12. PREPARE SITE FOR PAVING.
13. PAVE SITE.
14. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
15. REMOVE EROSION AND TEMPORARY SEDIMENT CONTROL DEVICES AFTER FINAL STABILIZATION IS ACHIEVED.

STORMWATER MANAGEMENT PLANS GENERAL NOTES

1. THE CONTRACTOR AND/OR AUTHORIZED AGENTS SHALL REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO OR, ACCUMULATE IN, THE FLOW LINES AND PUBLIC RIGHTS OF WAYS OF THE CITY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN A TIMELY MANNER.
2. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL BE THE OBLIGATION OF THE PERMIT HOLDER UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED AND THE PERMIT IS RELEASED.
3. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, BORING, GRADING OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
4. THE CONTRACTOR SHALL LOCATE, INSTALL, AND MAINTAIN ALL EROSION CONTROL AND WATER QUALITY 'BEST MANAGEMENT PRACTICES' AS INDICATED IN THE APPROVED STORMWATER MANAGEMENT PLAN.
5. THE DEVELOPER, GENERAL CONTRACTOR, GRADING CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL INSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC RIGHTS OF WAY.
6. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE PROTECTED FROM WIND AND WATER EROSION WITHIN 14 DAYS OF STOCKPILE CONSTRUCTION. IF STOCKPILES ARE LOCATED WITHIN 100 FEET OF A DRAINAGEWAY, ADDITIONAL SEDIMENT CONTROLS SUCH AS TEMPORARY DIKES OR SILT FENCE SHALL BE REQUIRED.
7. APPROVED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR OF THE DURATION OF THIS PROJECT. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A BMP WHEN THE SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMP.
8. CONTRACTOR CAN MAKE USE OF THE EXISTING PAVED ENTRANCE AS THE VEHICLE TRACKING CONTROL DURING THE INITIAL PHASE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE VEHICLE TRACKING CONTROL, OR ON ANY OTHER EXISTING STABILIZED SURFACE WITHIN THE LIMITS OF DISTURBANCE SHALL BE CLEANED IMMEDIATELY. AS SOON AS EXISTING PAVEMENT OR CURB AND GUTTER BEGINS TO GET DEMOLISHED, THE CONTRACTOR SHALL REMOVE THE PAVEMENT AND INSTALL THE VEHICLE TRACKING CONTROL PER THE DETAILS INCLUDED ON THE PLANS.
9. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING THE EXISTING STORM DRAINAGE SYSTEM.

EROSION CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

"THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES".

"EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE".

GENERAL EROSION NOTES

1. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PAN AND BECOME FAMILIAR WITH ITS CONTENTS.
2. THE TEMPORARY PARKING AND STORAGE AREA SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EQUIPMENT CLEANING AREA, EMPLOYEE BREAK AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. THE EXACT LOCATIONS SHALL BE COORDINATE WITH THE OWNERS CONSTRUCTION MANAGER.
3. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.
4. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
5. DUST ON THE SITE SHALL BE CONTROLLED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
6. WASTE GENERATED ON-SITE SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. NO RUBBISH, TRASH, GARBAGE, OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
7. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
8. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED, SHALL BE TEMPORARILY SEEDED IMMEDIATELY BUT NO LONGER THAN 10 DAYS.
9. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 13 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
10. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD.
11. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
12. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DRAINAGE FACILITIES AFTER THE STABILIZATION OF THE SITE AND ALSO ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE DOWNSTREAM STORMWATER DRAINAGE SYSTEMS.
13. ON THE SOIL STOCKPILE ON THE SITE, SEEDING AND SILT FENCES SHALL BE USED TO HELP CONTAIN THE SEDIMENT.
14. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
15. SEDIMENT TRAPS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.
16. ALL TEMPORARY EROSIONS AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER OF 100% WITH 85% DENSITY FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, SILT DIKES, ETC.) TO HELP PREVENT EROSION AND STORM WATER POLLUTION.
18. ALL OFF-SITE CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR STORM DRAINS & UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
19. THE LOCATION OF THE SILT FENCE AND CONSTRUCTION FENCE ON THE DRAWINGS IS FOR GRAPHICAL REPRESENTATION ONLY. THE CONTRACTOR IS TO ENSURE THAT THE SILT FENCE AND CONSTRUCTION FENCE ENCOMPASSES THE ENTIRE WORK AREA.
20. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE AS REQUIRED BY THE ENGINEER PLANS, AND CITY REPRESENTATIVE. SILTATION CONTROL MEASURES SHALL BE INSPECTED PER THE NPDES PERMIT REQUIREMENTS. ANY DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY AND NO FURTHER WORK WILL PROCEED UNTIL SAID DEFICIENCIES ARE CORRECTED TO THE CITY ENGINEER'S APPROVAL.
21. EROSION CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
22. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES.
23. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITION EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

N

0 15 30
SCALE: 1"=30'

SHEET NO. C-4.1

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/01/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

CBMP PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730
MURPHY USA

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

1. GRADING, DRILLING, CLEARING, EXCAVATING, BACK-FILLING, SOIL STRIPPING, SOIL IMPORTING EXPORTING OR ANY OTHER FORM OF SOIL DISTURBANCE SHALL NOT COMMENCE UNTIL A TOWN OF PARKER GRADING/EXCAVATION PERMIT HAS BEEN ISSUED.
2. THE TOWN OF PARKER GRADING/EXCAVATION PERMIT IS VALID FOR A PERIOD OF 2 YEARS FROM THE DATE OF ISSUANCE. ANY LAPSE IN PERMIT COVERAGE MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND/OR FINES.
3. ALL EROSION AND SEDIMENT CONTROL BMPS SHALL BE INSTALLED ACCORDING TO THE CBMP PLAN INSTALLATION NOTES AND DETAILS AND/OR PERMITTED VARIANCES. ALL MATERIALS, WORKMANSHIP AND INSTALLATION METHODS ARE SUBJECT TO INSPECTION BY THE TOWN'S INSPECTOR. THE TOWN OF PARKER RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS, WORKMANSHIP AND/OR INSTALLATION METHODS THAT DO NOT CONFORM TO THE CBMP PLAN AND/OR PERMITTED VARIANCES.
4. THE EROSION CONTROL SUPERVISOR SHALL REVISE OR MODIFY THE EROSION AND SEDIMENT CONTROL MEASURES IF IT BECOMES APPARENT THAT THE ORIGINAL PLAN IS INADEQUATE, OR AS A RESULT OF DEFICIENCIES IDENTIFIED DURING INSPECTIONS PERFORMED BY THE TOWN'S INSPECTOR.
5. THE INSTALLATION OF ADDITIONAL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) MAY BE REQUIRED OF THE EROSION CONTROL SUPERVISOR, PROPERTY OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS AT ANY TIME THROUGHOUT THE DURATION OF THE PROJECT CONSTRUCTION AND/OR SUBSEQUENT REVEGETATION PERIOD.
6. THE EROSION CONTROL SUPERVISOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE NOTICE OF NUISANCE REPORTS (a.k.a. CONSTRUCTION SITE RUNOFF CONTROL INSPECTION REPORTS), APPROVED CBMP PLAN(S) AND THE TOWN OF PARKER STORM DRAINAGE AND ENVIRONMENTAL CRITERIA MANUAL.
7. THE EROSION CONTROL SUPERVISOR SHALL BE READILY AVAILABLE TO DISCUSS AND CORRECT ANY PROBLEMS THAT MAY ARISE RELATING TO GRADING, EROSION AND SEDIMENT CONTROL.
8. IF IT IS ANTICIPATED THAT ALL OR A PORTION OF THE PROJECT WILL OCCUR DURING SEASONS SUSCEPTIBLE TO SNOWFALL, THE USE OF CERTAIN EROSION AND SEDIMENT CONTROL BMPS ADJACENT TO PUBLIC ROADWAYS MAY NEED TO BE RECONSIDERED DUE TO THE NATURE OF SNOW REMOVAL OPERATIONS. AN APPROVED ALTERNATIVE MAY BE NECESSARY TO MINIMIZE DAMAGE FROM THESE OPERATIONS. THE TOWN OF PARKER ASSUMES NO RESPONSIBILITY FOR DAMAGE TO ANY BMPS AS A RESULT OF SNOW PLOWING AND SNOW REMOVAL.
9. AREAS OF LAND DISTURBANCE EQUAL TO 40 ACRES OR GREATER SHALL NOT BE EXPOSED FOR MORE THAN 30 CONSECUTIVE DAYS WITHOUT TEMPORARY OR PERMANENT STABILIZATION.
10. AUTHORIZED EXEMPTIONS MAY BE ALLOWED TO THE 40-ACRE LIMIT FOR REMOVAL AND STORAGE OF CUT MATERIAL WHERE (A) GEOTECHNICAL LIMITATIONS RESTRICT THE USE OF TEMPORARY OR PERMANENT STABILIZATION OF THE STORED MATERIAL (E.G., SWELLING SOILS, ROCK) AND (B) WHEN THE OWNER CAN DEMONSTRATE THAT THE 40-ACRE LIMIT IS PHYSICALLY AND/OR FINANCIALLY IMPRACTICABLE. FOR SITES GRANTED THIS EXEMPTION, A PHASING AND EARTHWORK QUANTITIES PLAN SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT AND APPROVED PRIOR TO THE COMMENCEMENT OF LAND DISTURBANCE ACTIVITIES. SUBMITTAL REQUIREMENTS INCLUDE:
    - (I) PHASING PLAN SHOWING CUT AND FILL VOLUMES AND LOCATIONS FOR EACH PHASE AND PROJECT TOTALS.
    - (II) EARTHWORK QUANTITY PLAN SHOWING CUT AND FILL VOLUMES AND LOCATIONS FOR EACH PHASE AND PROJECT TOTALS.
    - (III) BMP PLAN SHOWING SPECIFIC EROSION AND SEDIMENT CONTROLS FOR EACH PHASE.

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | GEN NOTES 1 OF 4 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

11. ANY EROSION AND SEDIMENT CONTROL BMPS THAT ARE DAMAGED OR IN NEED OF MAINTENANCE OR REPLACEMENT SHALL BE CORRECTED AS SOON AS POSSIBLE, IMMEDIATELY IN MOST CASES.
12. ALL DEFICIENCIES LISTED ON THE NOTICE OF NUISANCE FORM SHALL BE COMPLETED AS SOON AS POSSIBLE, IMMEDIATELY IN MOST CASES. ALL REQUIRED ACTIONS MUST BE IN THE CORRECTED FORM DURING THE FOLLOW-UP INSPECTION.
13. THE EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR ENSURING THAT ALL STREETS, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, ALLEYS, TRICKLE CHANNELS, AND/OR OTHER IMPERVIOUS SURFACES IMPACTED BY CONSTRUCTION ACTIVITIES ARE THOROUGHLY CLEANED THROUGHOUT THE DAY IF THEY BECOME SOILED. THESE AREAS MUST ALSO BE THOROUGHLY CLEAN BEFORE THE END OF THE WORK DAY.
14. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS.
15. ALL TRASH RECEPTACLES ON SITE SHALL BE FREE OF HOLES, CRACKS, GAPS, AND/OR OTHER PERMEABLE AREAS THAT MAY ALLOW FOR THE DISCHARGE OF POLLUTANTS.
16. ALL TRASH RECEPTACLES ON SITE SHALL BE EMPTIED AT A FREQUENCY AS TO ENSURE THAT THE TRASH REMAINS CONFINED TO THE RECEPTACLE.
17. ALL LOOSE TRASH AND LITTER ASSOCIATED WITH THE PROJECT MUST BE REMOVED AND PROPERLY DISCARDED ON A DAILY BASIS.
18. ALL PORTABLE TOILETS SHALL BE STAKED DOWN AT ALL TIMES USING U-SHAPED REBAR STAKES. THE PORTABLE TOILETS SHALL ALSO BE PLACED A MINIMUM DISTANCE OF 10 FEET FROM ALL IMPERVIOUS SURFACES, INCLUDING, BUT NOT LIMITED TO STREETS CURBS, GUTTERS, SIDEWALKS AND PARKING LOTS.
19. THE EROSION CONTROL SUPERVISOR SHALL MAINTAIN STRICT ADHERENCE TO THE LIMITS OF CONSTRUCTION AND PROPERTY LIMITS FOR ALL MATERIALS, VEHICLES AND EQUIPMENT. FAILURE TO ABIDE BY THIS REQUIREMENT MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER.
20. ALL CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE THROUGH THE APPROVED ACCESS POINT(S). A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL APPROVED ACCESS POINTS TO THE SITE. EXCEPTIONS MAY BE CONSIDERED FOR CONSTRUCTION ACTIVITY OCCURRING IMMEDIATELY ADJACENT TO PAVED AREAS AND WHERE ALTERNATIVE BMP'S ARE IMPLEMENTED. SUCH ACTIVITY MAY INCLUDE, BUT NOT BE LIMITED TO RESIDENTIAL CONSTRUCTION, UTILITY CONSTRUCTION, ETC.
21. NO PERMANENT SLOPES GREATER THAN 3:1 ARE ALLOWED.
22. ALL PERMANENT SLOPES STEEPER THAN 4:1 (HORIZONTAL TO VERTICAL) SHALL REQUIRE EROSION CONTROL BLANKET(S). TEMPORARY SLOPES IN TEMPORARY SEDIMENT BASINS THAT ARE STEEPER THAN 4:1 MAY REQUIRE EROSION CONTROL BLANKETS.
23. THE EROSION CONTROL SUPERVISOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ADVERSE IMPACTS THAT OCCUR TO NEIGHBORING PROPERTIES. THE EROSION CONTROL SUPERVISOR MUST OBTAIN PERMISSION FROM LAND OWNERS PRIOR TO ENTERING SUCH PROPERTY.
24. A WATER SOURCE SHALL BE AVAILABLE ONSITE DURING CONSTRUCTION ACTIVITIES, AND UTILIZED TO MINIMIZE FUGITIVE DUST. ALTERNATIVE BMPS MAY BE REQUIRED IF INITIAL ATTEMPTS TO SUPPRESS DUST ARE UNSUCCESSFUL.

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | GEN NOTES 2 OF 4 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

25. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS, INCLUDING CONCRETE WASHOUT WATER, WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDES BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER, DRY GULLIES OR STORM SEWERS LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) PER 25-8-601, AND THE TOWN OF PARKER. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AND THE CDPHE. SPILLS THAT POSE AN IMMEDIATE SAFETY HAZARD SHALL BE REPORTED TO 911.
26. THE CLEANING OF CONCRETE TRUCKS AND EQUIPMENT IS RESTRICTED TO THE APPROVED CONCRETE WASHOUT LOCATION ON THE JOB SITE. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO STATE WATERS OR STORM SEWER SYSTEMS.
27. VEHICLE AND EQUIPMENT DEGREASING IS PROHIBITED ON THE JOB SITE.
28. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH THE TOWN'S INSPECTOR. A STATE PERMIT MAY BE REQUIRED FOR DEWATERING. THE EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR OBTAINING AND ADHERING TO ALL APPLICABLE PERMITS.
29. HYDRAULIC SEEDING AND/OR HYDRAULIC MULCHING ARE ONLY ALLOWED IN AREAS UNDER TEMPORARY OR PERMANENT IRRIGATION OR FOR THE PURPOSE OF TEMPORARY SOIL STABILIZATION.
30. APPLICABLE CONSTRUCTION BMPS SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL ALL LANDSCAPING HAS BEEN INSTALLED AND THE DESIRABLE VEGETATION HAS REACHED A POINT IN WHICH EROSION AND SEDIMENTATION IS NO LONGER A CONCERN AS DETERMINED BY THE TOWN'S INSPECTOR.
31. GRADING SECURITY RELEASE REQUIREMENTS:
    1) DEVELOPABLE PROPERTY: IN ORDER FOR THE GRADING SECURITY TO BE RELEASED, THE SITE MUST MEET ITEMS A-H OR ITEM I (BELOW).
        - A. ALL SOIL-DISTURBING ACTIVITIES ASSOCIATED WITH THE GRADING PERMIT HAVE PERMANENTLY CEASED.
        - B. UNIFORM PERENNIAL VEGETATION COVER HAS BEEN ESTABLISHED WITH AN INDIVIDUAL PLANT DENSITY OF AT LEAST SEVENTY PERCENT (70%) OF PRE-DISTURBANCE LEVELS.
        - C. ALL CBMPS HAVE BEEN PROPERLY REMOVED FROM THE SITE.
        - D. IF ANY EROSION IS PRESENT, IT IS INSIGNIFICANT AND IS NOT LEAVING THE SITE AND/OR LEADING INTO ANY ON-SITE DRAINAGE INFRASTRUCTURE THAT MAY CONVEY SURFACE WATER OFF SITE.
        - E. WEEDS REPRESENT NO MORE THAN FIFTY PERCENT (50%) OF THE TOTAL VEGETATION ON THE SITE.
        - F. NO WEEDS ARE PRESENT FROM LIST A OF THE COLORADO NOXIOUS WEED LIST, AS AMENDED.
        - G. THE SITE IS PREDOMINANTLY FREE OF WEEDS FROM LIST B OF THE COLORADO NOXIOUS WEED LIST, AS AMENDED.
        - H. WEEDS ARE EVENLY DISTRIBUTED THROUGHOUT THE SITE WITH NO LARGE CONCENTRATIONS PRESENT.
        - I. A NEW GRADING PERMIT AND REPLACEMENT SECURITY HAS BEEN SUBMITTED AND APPROVED FOR THE APPLICABLE SITE OR ASSIGNMENT AS PROVIDED BY SECTION 11.10.150 OF THE TOWN OF PARKER MUNICIPAL CODE. IT IS THE PROPERTY OWNER'S OBLIGATION, AT THE TIME OF CLOSING ON THE SALE OF A SITE THAT IS SUBJECT TO A GRADING PERMIT, TO ENSURE THAT THE NEW PROPERTY OWNER HAS PROVIDED THE TOWN WITH A REPLACEMENT SECURITY.

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | GEN NOTES 3 OF 4 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

2) NONDEVELOPABLE PROPERTY: IN ORDER FOR THE GRADING SECURITY TO BE RELEASED, THE SITE MUST MEET ITEMS A-H AND J, OR ITEMS I AND J (BELOW).

- A. ALL SOIL-DISTURBING ACTIVITIES ASSOCIATED WITH THE GRADING PERMIT HAVE PERMANENTLY CEASED.
- B. ALL CBMPS HAVE BEEN PROPERLY REMOVED FROM THE SITE.
- C. EROSION IS NEGLIGIBLE, IF EVEN PRESENT.
- D. THE VEGETATION REPRESENTS A PERENNIAL STAND OF A DENSE, UNIFORM SURFACE OF GRASS WITH NO AREA GREATER THAN ONE (1) SQUARE FOOT THAT IS BARREN OF DESIRABLE VEGETATION. INFREQUENT, WIDELY SCATTERED AREAS WHERE NATIVE VEGETATION HAS NOT YET TAKEN HOLD MAY QUALIFY FOR ACCEPTANCE AT THE DISCRETION OF THE TOWN.
- E. WEEDS REPRESENT NO MORE THAN TEN PERCENT (10%) OF THE TOTAL VEGETATION ON SITE.
- F. NO WEEDS ARE PRESENT FROM LIST A OF THE COLORADO NOXIOUS WEED LIST, AS AMENDED.
- G. THE SITE IS PREDOMINANTLY FREE OF WEEDS FROM LIST B OF THE COLORADO NOXIOUS WEED LIST, AS AMENDED.
- H. WEEDS ARE EVENLY DISTRIBUTED THROUGHOUT THE SITE WITH NO LARGE CONCENTRATIONS PRESENT.
- I. A NEW GRADING PERMIT AND REPLACEMENT SECURITY HAS BEEN SUBMITTED AND APPROVED FOR THE APPLICABLE SITE OR THE GRADING PERMIT HAS BEEN ASSIGNED AS PROVIDED BY SECTION 11.10.150 OF THE TOWN OF PARKER MUNICIPAL CODE. IT IS THE PROPERTY OWNER'S OBLIGATION, AT THE TIME OF CLOSING ON THE SALE OF A SITE THAT IS SUBJECT TO A GRADING PERMIT, TO ENSURE THAT THE NEW PROPERTY OWNER HAS PROVIDED THE TOWN WITH A REPLACEMENT SECURITY.
- J. ALL KNOWN DRAINAGE ISSUES ASSOCIATED WITH THE PROJECT HAVE BEEN MITIGATED AND A SUFFICIENT AMOUNT OF TIME HAS PASSED TO ENSURE THAT SUCH ISSUES HAVE BEEN CORRECTED. THIS REQUIREMENT DOES NOT INCLUDE THOSE DRAINAGE ISSUES ORIGINATING ON RESIDENTIAL LOTS.

(D) NOXIOUS WEEDS MUST BE CONTROLLED AS PROVIDED UNDER STATE LAW AND SECTION 6.01.260 OF THE TOWN OF PARKER MUNICIPAL CODE. FAILURE TO CONTROL NOXIOUS WEEDS ON THE SITE MAY CONSTITUTE A NUISANCE, SUBJECT TO THE PENALTIES CONTAINED IN THE CODE.

DEFINITIONS:

DEVELOPABLE PROPERTY MEANS ANY LAND THAT HAS BEEN GRADED AND IS PART OF A PLATTED LOT OR PLATTED TRACT OF RECORD, THAT WAS PLATTED FOR FUTURE DEVELOPMENT, INCLUDING RESIDENTIAL HOME CONSTRUCTION OR PUBLIC IMPROVEMENTS.

NONDEVELOPABLE PROPERTY MEANS LAND THAT HAS BEEN GRADED AND WILL NOT BE FURTHER DISTURBED AS PART OF ANY FUTURE DEVELOPMENT. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO: PARKS, OPEN SPACE, HOMEOWNER ASSOCIATION OR BUSINESS ASSOCIATION PLATTED TRACTS, DETENTION PONDS AND DRAINAGEWAYS.

32. FAILURE TO COMPLY WITH ANY OF THE REQUIREMENTS DESCRIBED IN THIS SECTION MAY RESULT IN THE ISSUANCE OF: A NOTICE OF INTENT TO ISSUE A STOP WORK ORDER; A STOP WORK ORDER AND/OR THE REMEDIES/PENALTIES DESCRIBED IN CHAPTER 11.10 OF THE TOWN OF PARKER MUNICIPAL CODE.
33. ANY PERSON CONVICTED OF VIOLATING ANY PROVISION OF THE TOWN OF PARKER, GRADING & EARTH MOVEMENT SECTION OF THE MUNICIPAL CODE SHALL BE GUILTY OF A MISDEMEANOR AND, UPON CONVICTION, BE PUNISHED BY A FINE OF NOT MORE THAN FOUR HUNDRED NINETY NINE DOLLARS ($499.00) FOR EACH SEPARATE OFFENSE. EACH DAY A VIOLATION CONTINUES SHALL CONSTITUTE A SEPARATE OFFENSE. THE TOWN ALSO MAY SEEK IN MUNICIPAL COURT AN INJUNCTION, ABATEMENT, RESTITUTION OR ANY OTHER REMEDY TO PREVENT, ENJOIN, ABATE OR REMOVE THE VIOLATION. A PERSON CONVICTED OF VIOLATING CHAPTER 11.10 OF THE TOWN OF PARKER MUNICIPAL CODE SHALL BE LIABLE FOR THE ACTUAL COST OF REHABILITATING THE PROPERTY. THE COSTS MAY BE RECOVERED AS RESTITUTION IN MUNICIPAL COURT PROCEEDINGS OR IN A SEPARATE CIVIL ACTION.
34. THE TOWN OF PARKER RESERVES THE RIGHT TO ALLOW MODIFICATIONS AND SUBSTITUTIONS TO THE CBMP NOTES AND DETAILS WHEN SUCH MODIFICATIONS AND SUBSTITUTIONS OFFER THE SAME LEVEL OF PROTECTION AS THE STANDARD REQUIREMENTS BASED UPON THE SPECIFIC SITUATION, AS DETERMINED BY TOWN STAFF. DUE TO THE INSIGNIFICANCE AND REGULARITY OF SUCH MODIFICATIONS AND SUBSTITUTIONS, THE APPROVAL OF SUCH VARIATIONS MAY NOT BE DOCUMENTED BY TOWN STAFF.

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | GEN NOTES 4 OF 4 Oct. 2013

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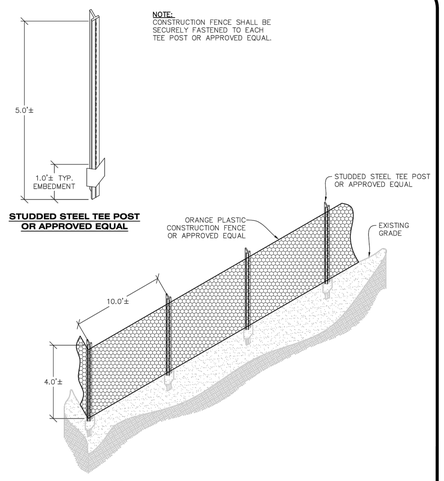


STUDDED STEEL TEE POST OR APPROVED EQUAL

CF **CONSTRUCTION FENCE**

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | CF 1 OF 2 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

CONSTRUCTION FENCE INSTALLATION NOTES

1. THE CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO EACH POST OR APPROVED EQUAL.

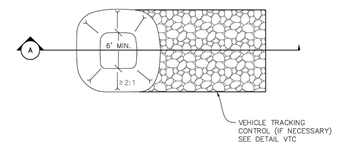
CONSTRUCTION FENCE INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE CONSTRUCTION FENCE AND MAKE ANY NECESSARY REPAIRS.
2. CONSTRUCTION FENCE SHALL BE REPAIRED WHEN THE FENCING MATERIAL FALLS OUT OF COMPLIANCE WITH THE NOTES AND DETAILS.

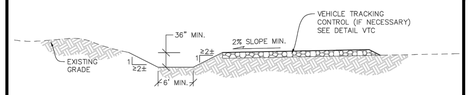
Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | CF 2 OF 2 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

NOTE:
A VTC PAD IS NOT NECESSARY IF THERE IS ANOTHER VTC PAD IN BETWEEN THE CWA AND ROADWAY, PARKING LOT, DRIVE AISLES, ETC.



PLAN VIEW



SECTION A

CWA **CONCRETE WASHOUT AREA**

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | CWA 1 OF 2 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

CONCRETE WASHOUT AREA INSTALLATION NOTES

1. CONCRETE WASHOUT AREAS SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT THE ACCESS POINT TO ALL CONCRETE WASHOUT AREAS WHEN NO OTHER VTC PAD EXISTS IN BETWEEN THE CWA AND THE ROADWAY.
3. IF GROUNDWATER IS ENCOUNTERED WHEN DIGGING THE PIT, A NEW LOCATION SHOULD BE SELECTED. IF NO OTHER LOCATION CAN BE FOUND, A ONE-PIECE IMPERVIOUS LINER SHALL BE REQUIRED ALONG THE BOTTOM AND SIDES OF THE SUBSURFACE PIT.

CONCRETE WASHOUT AREA INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE CONCRETE WASHOUT AREA.
2. CONCRETE WASHOUT MATERIALS SHALL BE REMOVED BEFORE ITS CAPACITY HAS BEEN REACHED.
3. CONCRETE WASHOUT AREAS SHALL BE ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE AND ASSOCIATED WASH WATER.
4. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE AS NECESSARY TO ENSURE ADEQUATE CAPACITY.
5. CONCRETE WASHOUT AREAS SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
6. WHEN CONCRETE WASHOUT AREAS ARE REMOVED, THE TOWN'S INSPECTOR MAY REQUIRE EXCAVATIONS TO BE FILLED WITH SUITABLE COMPACTED BACKFILL AND TOPSOIL, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE CONCRETE WASHOUT AREAS SHALL BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).

Town of Parker COLORADO | CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES | CWA 2 OF 2 Oct. 2013

SHEET NO. C-4.2

COLORADO LICENSED — MICHAEL E. MAY — 58388 — PROFESSIONAL ENGINEER — 08/03/2021

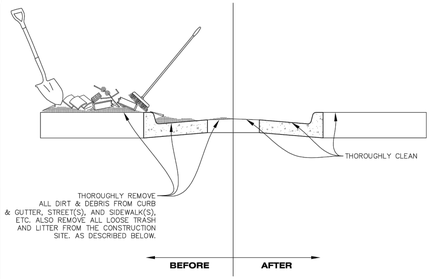
	DATE	PRN	JES	KML	KML
OTB	08/05/2021	---	PM	DES	DRW

CBMP DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.



NOTE:

1. THE EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR ENSURING THAT ALL STREETS, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, ALLEYS, TRICKLE CHANNELS, AND/OR OTHER IMPERVIOUS SURFACES IMPACTED BY CONSTRUCTION ACTIVITIES ARE THOROUGHLY CLEANED THROUGHOUT THE DAY IF THEY BECOME SOILED. THESE AREAS MUST ALSO BE THOROUGHLY CLEAN BEFORE THE END OF THE WORK DAY. FURTHERMORE, ALL LOOSE TRASH AND LITTER ASSOCIATED WITH THE PROJECT MUST BE REMOVED AND PROPERLY DISCARDED ON A DAILY BASIS.

DTC **DEBRIS AND TRASH CONTROL**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | DTC 1 OF 2 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

DEBRIS CONTROL NOTES:

1. A COMBINATION OF SURFACE SCRAPING AND SWEEPING MAY BE NECESSARY TO PROPERLY CLEAN THESE AREAS.
2. ALL CHEMICAL SPILLS AND/OR STAINS ON THE SITE SHALL BE CLEANED TO THE MAXIMUM EXTENT PRACTICABLE. IN SOME CASES IT MAY BE NECESSARY TO USE PRESSURIZED WATER AND A VAC-TRUCK.
3. ON-SITE PERSONNEL, DELIVERY DRIVERS, ETC., SHOULD BE EDUCATED ON THE NEED FOR CONTINUAL DEBRIS AND TRASH CONTROL.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | DTC 2 OF 2 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

AREA INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION(S) OF AREA INLET PROTECTION.
2. THE AREA INLET PROTECTION SHOWN ON CBMP PLANS SHALL BE INSTALLED ON EXISTING INLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES OR IMMEDIATELY AFTER THE INSTALLATION OF NEW INLETS. AN INTERIM STYLE OF INLET PROTECTION MAY BE ALLOWED UNTIL THE INSTALLATION OF THE GUTTER AND/OR PAVEMENT.

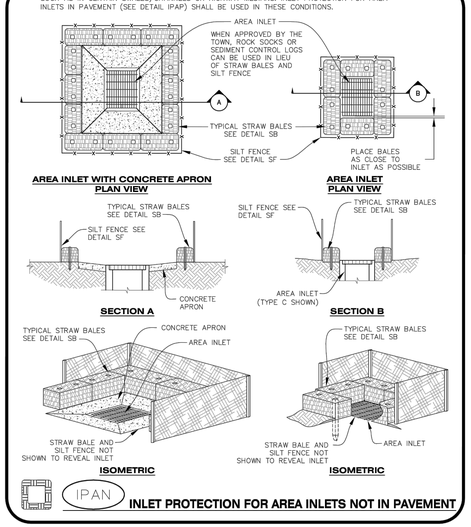
AREA INLET PROTECTION INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE AREA INLET PROTECTION.
2. AREA INLET PROTECTION SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
3. WHEN THE AREA INLET PROTECTION IS REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE AREA INLET PROTECTION MAY NEED TO BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).
4. ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS POSSIBLE, IMMEDIATELY IN MOST CASES.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPA 1 OF 1 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

THIS METHOD OF INLET PROTECTION SHALL NOT BE USED ON INLETS RECEIVING SIGNIFICANT FLOWS, SUCH AS IN CERTAIN SWALES/CHANNELS OR HIGHWAY MEDIANS. INLET PROTECTION FOR AREA INLETS IN PAVEMENT (SEE DETAIL IPAP) SHALL BE USED IN THESE CONDITIONS.



IPAN **INLET PROTECTION FOR AREA INLETS NOT IN PAVEMENT**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPAN 1 OF 1 Oct. 2013

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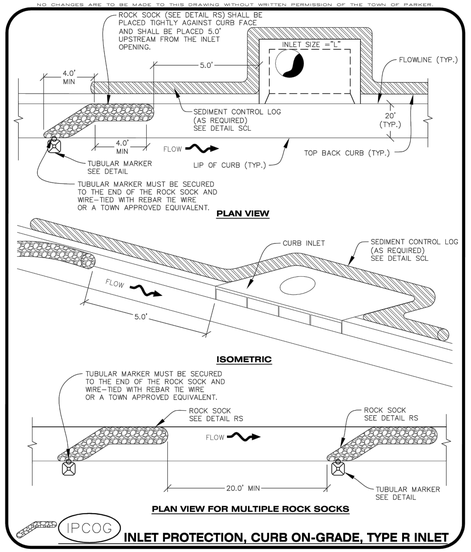
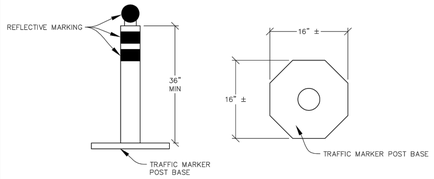


IPCOG **INLET PROTECTION, CURB ON-GRADE, TYPE R INLET**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPCOG 1 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.



TUBULAR TRAFFIC MARKER DETAIL

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPCOG 2 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

INLET PROTECTION, CURB ON-GRADE INSTALLATION NOTES

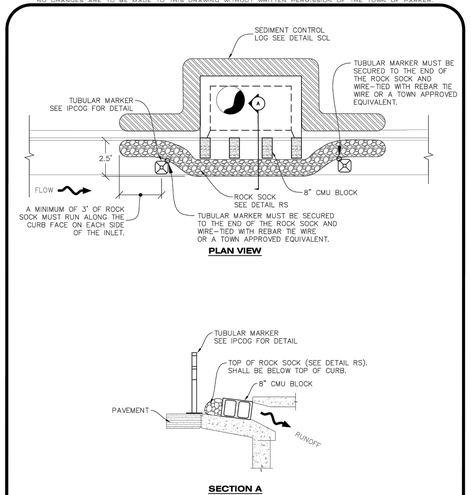
1. SEE CBMP PLAN FOR LOCATION(S) OF ON-GRADE INLET PROTECTION.
2. CRUSHED ROCK SHALL BE 2.0"-3.0" IN SIZE WITH A FRACTURED FACE (ALL SIDES).
3. ROCK SOCK FOR ON-GRADE INLET PROTECTION SHALL BE ONE CONTINUOUS PIECE.
4. ROCK SOCK SHALL BE CONSTRUCTED USING CHICKEN WIRE OR OTHER APPROVED MATERIAL, SIZED TO KEEP ROCK FROM SPILLING OUT.
5. ROCK SOCK SHALL BE PLACED 5.0' UPHILL OF THE INLET OPENING.
6. TUBULAR MARKER SHALL BE A MINIMUM OF 3.0' HIGH WITH REFLECTIVE BANDS AND OCTAGON SHAPED BASES.
7. THE CURB INLET PROTECTION SHOWN ON CBMP PLAN SHALL BE INSTALLED ON EXISTING INLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES OR IMMEDIATELY AFTER THE APPLICABLE INSTALLATION OF THE FIRST LIFT OF ASPHALT ON ROADWAYS DRAINING TO THE INLET.

ON-GRADE INLET PROTECTION INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE ON-GRADE INLET PROTECTION.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS POSSIBLE, IMMEDIATELY IN MOST CASES.
3. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED.
4. ON-GRADE INLET PROTECTION SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPCOG 3 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.



IPCOS **INLET PROTECTION, CURB ON SUMP, TYPE R INLET**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPCOS 1 OF 2 Oct. 2013

SHEET NO. C-4.3

COLORADO LICENSED MICHAEL E. MAY 58388 PROFESSIONAL ENGINEER 08/05/2021

OTB	DATE	---	JES	KML	KML
	08/05/2021	PRN	PM	DES	DRW

CBMP DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER *COLORADO*

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

CURB INLET PROTECTION INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF CURB INLET PROTECTION.
2. CRUSHED ROCK SHALL BE 2.0"–3.0" IN SIZE WITH A FRACTURED FACE (ALL SIDES).
3. ROCK SOCK SHALL BE ONE CONTINUOUS PIECE OR SHALL BE CONSTRUCTED USING WIRE WRAPPED JOINTS (SEE DETAIL RS).
4. ROCK SOCK SHALL BE CONSTRUCTED USING CHICKEN WIRE OR OTHER APPROVED MATERIAL SIZED TO KEEP ROCK FROM SPILLING OUT.
5. ROCK SOCK SHALL EXTEND 3.0' ALONG THE CURB BEYOND LOCATIONS WHERE IT RETURNS TO CONTACT CURB FACE.
6. TUBULAR TRAFFIC MARKERS SHALL BE A MINIMUM OF 36" IN HEIGHT WITH REFLECTIVE BANDS AND OCTAGON SHAPED BASES.
7. THE CURB INLET PROTECTION SHOWN ON CBMP PLAN SHALL BE INSTALLED ON EXISTING INLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES OR IMMEDIATELY AFTER THE INSTALLATION OF THE FIRST LIFT OF ASPHALT ON ROADWAYS DRAINING TO THE CURB INLET. CMU BLOCKS OR THE ROCK SOCK SHALL BE USED AS INTERIM PROTECTION UNTIL THE FIRST LIFT OF ASPHALT IS INSTALLED.

CURB INLET PROTECTION INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE CURB INLET PROTECTION.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS POSSIBLE, IMMEDIATELY IN MOST CASES.
3. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED.
4. CURB INLET PROTECTION SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | IPCOS | 2 OF 2 | Oct. 2013

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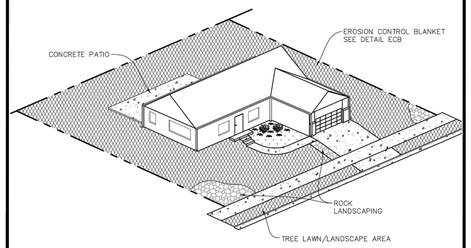

LP **LOT PROTECTION**

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | LP | 1 OF 2 | Oct. 2013

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EROSION CONTROL BLANKET FOR LOT PROTECTION INSTALLATION NOTES

1. ALL EROSION CONTROL BLANKETS FOR LOT PROTECTION INSTALLED IN THE TOWN SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

MANUFACTURER	PRODUCT NAME
NORTH AMERICAN GREEN	S150 BN
APPROVED EQUAL	APPROVED EQUAL

2. ALL EROSION CONTROL BLANKETS FOR LOT PROTECTION SHALL BE INSTALLED ACCORDING TO THE DETAIL DRAWINGS, WITH THE FOLLOWING ALLOWANCES AND ADDITIONS:
   - THE TOWN WILL ALLOW THE USE OF BIODEGRADABLE, EROSION CONTROL BLANKET–SPECIFIC STAPLES, IN LIEU OF TRADITIONAL METAL STAPLES.
   - ALL EROSION CONTROL BLANKET EDGES (SIDES AND ENDS) MUST OVERLAP THE ADJACENT BLANKET BY A MINIMUM OF 6–INCHES WITH THE UP–GRADIENT EDGES BEING PLACED ON TOP OF THE DOWN–GRADIENT EDGE OF THE ADJACENT BLANKET.
   - THE EDGES (SIDES AND ENDS) OF THE EROSION CONTROL BLANKETS DO NOT NEED TO BE TRENCHED INTO THE GROUND ASSUMING THE SITE CONDITIONS WILL NOT CAUSE EROSION BENEATH THE BLANKETS. THESE ASSUMPTIONS WILL BE THE RESPONSIBILITY OF THE EROSION CONTROL SUPERVISOR. ON OCCASION, THE TOWN'S INSPECTOR MAY REQUEST TRENCHING BASED UPON SITE CONDITIONS.
   - TOPSOIL PLACEMENT, SEEDING, AND MULCHING WILL NOT BE REQUIRED ON THE LOTS PRIOR TO THE INSTALLATION OF THE EROSION CONTROL BLANKET.
3. ANY DAMAGED OR EXCESS STAPLES SHALL BE REMOVED FROM THE SITE FOLLOWING INSTALLATION.
4. THE EROSION CONTROL BLANKETING REQUIRED AS PART OF THE LOT PROTECTION (LP) REQUIREMENT MUST BE INSTALLED OVER ALL UN–LANDSCAPED AREAS WITHIN EACH RESIDENTIAL, MULTI–FAMILY, AND COMMERCIAL LOT PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY / TEMPORARY CERTIFICATE OF OCCUPANCY.

EROSION CONTROL BLANKET FOR LOT PROTECTION MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE EROSION CONTROL BLANKET FOR LOT PROTECTION.
2. EROSION CONTROL BLANKETS FOR LOT PROTECTION ARE INTENDED TO REMAIN IN PLACE AND MAINTAINED UNTIL LANDSCAPING IS INSTALLED.

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | LP | 2 OF 2 | Oct. 2013

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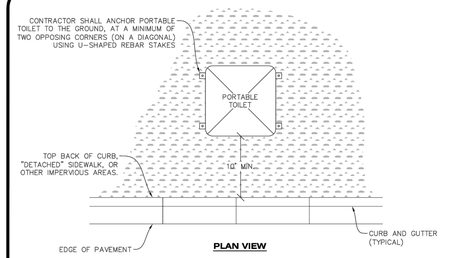
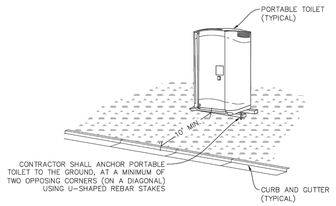


PLAN VIEW



ISOMETRIC

PTP **PORTABLE TOILET PROTECTION**

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | PTP | 1 OF 2 | Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PORTABLE TOILET PROTECTION INSTALLATION NOTES

1. PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10.0' BEHIND ALL CURBS, SIDEWALKS, AND OTHER IMPERVIOUS AREAS.
2. ALL PORTABLE TOILETS MUST BE GROUPED TOGETHER.
3. PORTABLE TOILETS SHALL BE SECURELY ANCHORED TO THE GROUND USING U–SHAPED REBAR STAKES.
4. U–SHAPED REBAR STAKES SHALL BE POSITIONED ON AT LEAST 2 OPPOSING (DIGITAL) CORNERS.

PORTABLE TOILET PROTECTION INSPECTION AND MAINTENANCE NOTES

2. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE PORTABLE TOILET PROTECTION.
3. PORTABLE TOILETS SHALL BE SERVICED AT THE NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY OF OVERFLOW.
4. WHEN THE PORTABLE TOILETS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MAY NEED TO BE LANDSCAPED OR ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).
5. PORTABLE TOILETS THAT ARE NOT CONSISTENTLY MAINTAINED IN ACCORDANCE WITH THESE REQUIREMENTS MAY NEED TO BE CLUSTERED TOGETHER, IN ONE CENTRALIZED LOCATION IN ORDER TO INCREASE COMPLIANCE AND REDUCE THE CHANCE OF A SPILL.

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | PTP | 2 OF 2 | Oct. 2013

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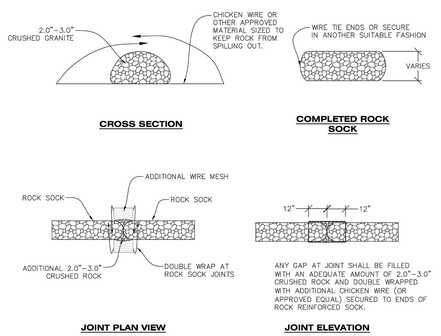

RS **ROCK SOCK**

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | RS | 1 OF 2 | Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

ROCK SOCK INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF ROCK SOCK.
2. CRUSHED ROCK SHALL BE APPROXIMATELY 2.0"–3.0" GRANITE IN SIZE WITH A FRACTURED FACE (ALL SIDES).
3. ROCK SOCK SHALL BE APPROXIMATELY ONE CONTINUOUS PIECE OR SHALL BE CONSTRUCTED USING WIRE WRAPPED JOINTS (SEE DETAIL RS).
4. ROCK SOCK SHALL BE CONSTRUCTED USING CHICKEN WIRE OR OTHER APPROVED MATERIAL SIZED TO KEEP ROCK FROM SPILLING OUT.
5. MINIMUM ROCK SOCK DIAMETER SHALL VARY BASED ON APPLICATION (7" MIN).
6. TUBULAR MARKERS MAY NEED TO BE USED IN CONJUNCTION WITH ROCKS SOCKS ANYTIME THE ROCK SOCK IS PLACED ON A ROADWAY, SIDEWALK, PARKING LOT OR OTHER LOCATION SUSCEPTIBLE TO VEHICLE OR PEDESTRIAN TRAFFIC. TUBULAR MARKERS SHALL CONFORM TO THE TUBULAR MARKER DETAIL.

ROCK SOCK INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE ROCK SOCKS.
2. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED.
3. ROCK SOCKS SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | RS | 2 OF 2 | Oct. 2013

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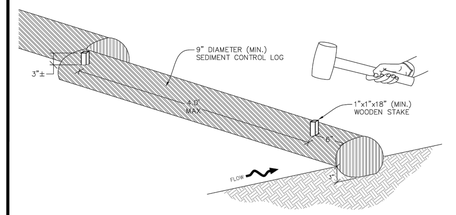

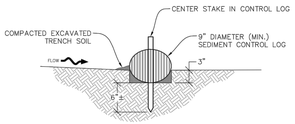

SECTION A

SCL **SEDIMENT CONTROL LOG**

Town of Parker COLORADO | CBMP | CONSTRUCTION BEST MANAGEMENT PRACTICES | SCL | 1 OF 3 | Oct. 2013

SHEET NO. C-4.4

COLORADO LICENSED MICHAEL E. MAY 58388 PROFESSIONAL ENGINEER 08/03/2021

DATE	PRN	PM	DES	DRW
08/05/2021	---	JES	KML	KML
OTB				

CBMP DETAILS
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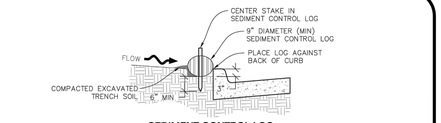
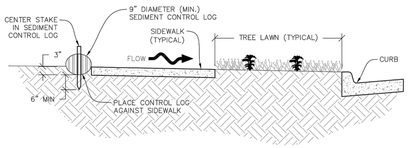
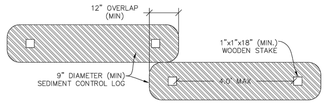


SEDIMENT CONTROL LOG AT BACK OF CURB



SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN



SEDIMENT CONTROL LOG JOINTS

SCL **SEDIMENT CONTROL LOG**

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SCL 2 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF SEDIMENT CONTROL LOGS.
2. ALL SEDIMENT CONTROL LOGS SHALL BE INSTALLED FREE OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
3. SEDIMENT CONTROL LOGS SHALL BE INSTALLED IMMEDIATELY ADJACENT TO AN IMPERVIOUS SURFACE SUCH AS A CURB HEAD, SIDEWALK, INLET LID, ETC. NO GAPS SHALL EXIST BETWEEN THE SEDIMENT CONTROL LOG AND THE IMPERVIOUS SURFACE.
4. A UNIFORM 3" DEEP ANCHOR TRENCH (APPROX.) IN THE SHAPE OF A HALF–SPHERE SHALL BE EXCAVATED USING A TRENCHER, SPADE–SHAPED SHOVEL, OR PICK. THE ANCHOR TRENCH SHALL BE SIZED TO ALLOW FOR THE SEDIMENT CONTROL LOG TO SEAT TIGHTLY AGAINST THE ANCHOR TRENCH.
5. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE ANCHOR TRENCH AND PROPERLY COMPACTED.
6. ANCHOR TRENCH SHALL BE RELATIVELY FREE OF ROCKS OR OTHER DEBRIS PRIOR TO THE PLACEMENT.
7. All SEDIMENT CONTROL LOGS SHALL BE PLACED 3" (APPROX.) BELOW THE GROUND AND PULLED TIGHT ON BOTH ENDS TO REMOVE ANY CURVES OR SNAGS.
8. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS RELATIVELY FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED AGAINST THE GROUND AND SEDIMENT CONTROL LOG USING A SHOVEL, OR SIMILAR DEVICE.
9. SEDIMENT CONTROL LOG STAKES SHALL BE MADE OF WOOD AND SECURELY ANCHOR THE SCL IN PLACE.
10. STAKES SHALL BE PLACED ON 4.0' CENTERS AND EMBEDDED APPROXIMATELY 6" INTO THE GROUND. STAKES THAT ARE BROKEN PRIOR TO OR DURING INSTALLATION SHALL BE REPLACED.
11. SEDIMENT CONTROL LOGS SHALL OVERLAP A MINIMUM OF 12". THE OVERLAPPING SHALL OCCUR ON THE UP–GRADIENT SIDE OF THE LOGS.
12. SEDIMENT CONTROL LOGS SHALL BE STAKED WITHIN 6" FROM EACH END.
13. SEDIMENT CONTROL LOGS THAT ARE INSTALLED BEHIND CURBS AND SIDEWALKS MUST BE DONE SO THAT NO MORE THAN A 2" GAP EXISTS BETWEEN THE CONCRETE AND THE LOG. EROSION CONTROL BLANKETING (ECB) BETWEEN THE GAP MAY BE REQUIRED IN INSTANCES WHERE THIS DOES NOT OCCUR.

SEDIMENT CONTROL LOG INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE SEDIMENT CONTROL LOGS.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE THE SEDIMENT HAS REACHED A DEPTH EQUAL TO 1/2 THE HEIGHT OF EXPOSED LOG.
3. SEDIMENT CONTROL LOGS SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
4. SEDIMENT CONTROL LOGS SHALL BE REPLACED WHEN THERE ARE ANY SIGNS OF WEAR OR DAMAGE THAT WOULD PREVENT THE SCL FROM FUNCTIONING AS DESIGNED.
5. WHEN THE SEDIMENT CONTROL LOGS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE SEDIMENT CONTROL LOGS MAY NEED TO BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SCL 3 OF 3 Oct. 2013

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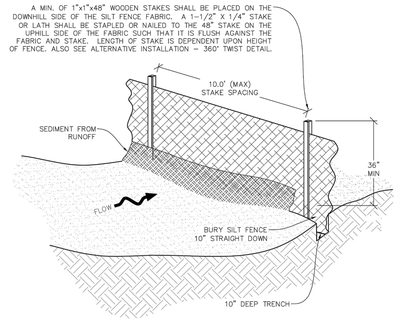

—X—X— SF **SILT FENCE**

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SF 1 OF 4 Oct. 2013

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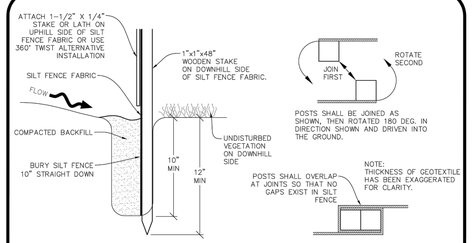

INSTALLATION DETAIL **JOINT SECTIONS**

STEP 1 **STEP 2**

ALTERNATIVE INSTALLATION - 360° TWIST

—X—X— SF **SILT FENCE**

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SF 2 OF 4 Oct. 2013

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SILT FENCE INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF SILT FENCE.
2. ALL SILT FENCE SHALL BE INSTALLED IN GOOD CONDITION AND FREE OF ANY DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
3. A UNIFORM 10" DEEP ANCHOR TRENCH SHALL BE EXCAVATED USING A TRENCHER.
4. A 10" DEEP ANCHOR SLIT SHALL BE FORMED IF USING A STATIC SLICING METHOD.
5. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE ANCHOR TRENCH.
6. ANCHOR TRENCH SHALL BE GENERALLY FREE OF ROCKS OR OTHER DEBRIS PRIOR TO THE PLACEMENT OF THE SILT FENCE.
7. THE ANCHOR TRENCH SHALL BE THOROUGHLY BACKFILLED WITH SOIL THAT IS GENERALLY FREE OF ROCKS AND DEBRIS.
8. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UP–GRADIENT SIDE OF THE SILT FENCE.
9. STAKES SHALL BE POSITIONED ON THE DOWNHILL SIDE OF THE SILT FENCE FABRIC AND PLACED ON 10.0' CENTERS OR LESS. STAKES SHALL BE EMBEDDED A MINIMUM OF 12" INTO THE GROUND. A WOODEN LATH SHALL BE ATTACHED TO THE OPPOSING (UPHILL) SIDE OF THE STAKE FOR ADDED STRENGTH AND SUPPORT. THE LATH SHALL HAVE THE FOLLOWING DIMENSIONS: 1"x¼"x24".
10. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD NOT BE SIGNIFICANT SAGGING ALONG ANY PORTION OF THE SILT FENCE AFTER IT HAS BEEN ANCHORED TO THE STAKES.
11. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES AND LATHS USING STAPLES OR NAILS OF AN APPROXIMATE LENGTH. ENOUGH STAPLES AND NAILS SHOULD BE PLACED ALONG THE LATH TO ENSURE PROPER ATTACHMENT.
12. SILT FENCE FABRIC SHALL MEET THE FOLLOWING MANDATORY REQUIREMENTS:

PROPERTIES	TEST METHOD	MANDATORY REQUIREMENTS
GRAB TENSILE STRENGTH	ASTM D 4632	≥ 124 LBS
MULLEN BURST STRENGTH	ASTM D 3786	≥ 300 PSI
PUNCTURE STRENGTH	ASTM D 4833	≥ 60 LBS
TRAPEZOID TEAR STRENGTH	ASTM D 4533	≥ 65 LBS
UV RESISTANCE	ASTM D 4355	≥ 80% AT 500 HOURS OF UV EXPOSURE
FLOW RATE	ASTM D 4491	≥ 10 GAL/MIN/FT2

13. AN ORIGINAL PRODUCT SPECIFICATION SHEET FROM THE SILT FENCE MANUFACTURER SHALL BE MADE AVAILABLE AT THE REQUEST OF THE TOWN'S INSPECTOR. THE PRODUCT SPECIFICATION SHEET SHALL PROVIDE THE RESULTS FOR THE TEST METHODS ABOVE.
14. SILT FENCE JOINTS SHALL BE CONNECTED ACCORDING TO THE ATTACHED DRAWING.
15. SILT FENCE THAT IS INSTALLED BEHIND CURBS AND SIDEWALKS MUST BE DONE SO THAT NO MORE THAN A 2" GAP EXISTS BETWEEN CONCRETE AND THE SILT FENCE. EROSION CONTROL BLANKETING (ECB) BETWEEN THE GAP MAY BE REQUIRED IN INSTANCES WHERE THIS DOES NOT OCCUR.

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SF 3 OF 4 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

SILT FENCE INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE SILT FENCE.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED REGULARLY.
3. SILT FENCE SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
4. SILT FENCE SHALL BE REPLACED WHEN THERE ARE ANY SIGNS OF WEAR AND/OR DAMAGE.
5. WHEN THE SILT FENCE IS REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE SILT FENCE MAY NEED TO BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SF 4 OF 4 Oct. 2013

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SEEDING AND MULCHING SHALL BE PERFORMED ACCORDING TO THE ACCOMPANYING DETAIL(S) AND TEXT. NO EXCEPTIONS SHALL BE MADE

1. SEE PLAN VIEW FOR:
   - LOCATION(S) OF SEEDING AND MULCHING
   - TYPE OF SEED MIX
2. SEED MIXES MAY CONFORM TO THE TABLE PROVIDED WITH THE SMC NOTES OR ALTERNATIVES MAY BE ALLOWED WITH PRIOR PERMISSION BY THE TOWN'S INSPECTOR.
3. SEEDING MAY BE PERFORMED YEAR ROUND ASSUMING THE SOIL IS NOT FROZEN. SEEDING DURING TIMES OF EXTREME TEMPERATURES SHOULD BE AVOIDED IF POSSIBLE.
4. AT THE BEGINNING OF THE LAND DISTURBANCE ACTIVITIES, IT IS HIGHLY RECOMMENDED THAT AN APPROPRIATE AMOUNT OF NATIVE TOPSOIL BE STRIPPED FROM THE SITE AND STOCKPILED. ALL AREAS, PRIOR TO PERMANENT SEEDING AND MULCHING, WILL LIKELY NEED TO BE COVERED WITH AN APPROPRIATE LAYER OF TOPSOIL. THIS REQUIREMENT APPLIES TO ALL AREAS WHERE NATIVE SEEDING IS SPECIFIED ON THE CBMP PLAN AND/OR LANDSCAPING PLANS.
5. IT IS STRONGLY RECOMMENDED THAT SAMPLES FROM THE STRIPPED TOPSOIL BE PROPERLY COLLECTED AND TESTED BY A QUALIFIED LABORATORY TO ENSURE ADEQUATE NUTRIENT CONTENT PRIOR TO SEEDING AND MULCHING. IF IT IS DISCOVERED THAT THE TOPSOIL IS VOID OF THE NUTRIENTS NECESSARY TO SUCCESSFULLY ESTABLISH THE REQUIRED VEGETATION, THEN THE APPROPRIATE AMENDMENTS SHALL BE ADDED.
6. ALL AREAS TO BE SEEDED AND MULCHED SHALL BE SURFACE ROUGHENED ACCORDING TO THE SURFACE ROUGHENING DETAILS AND NOTES. SURFACE ROUGHENING SHALL OCCUR AFTER PLACEMENT OF THE TOPSOIL.
7. WHEN INSTALLED WITH A DRILL SEEDER, SEED SHALL BE PLACED AT A DEPTH OF ¼ – ½ INCH. ROW SPACING SHALL BE NO MORE THAN 6–INCHES.
8. ALL AREAS INCAPABLE OF BEING DRILL SEEDED SHALL BE SURFACE ROUGHENED ACCORDING TO THE SURFACE ROUGHENING NOTES OR EFFECTIVELY ROUGHENED USING A HARROW OR OTHER SUCH IMPLEMENT. ALL AREAS SHALL BE UNIFORMLY HAND BROADCASTED WITH THE PROPER SEED MIX APPLIED AT TWO TIMES THE DRILL SEEDED RATE. BROADCASTED AREAS SHALL THEN BE RE–HARROWED OR RE–RAKED USING A HARD–TIPPED RAKE TO ENSURE THAT SEEDS ARE BURIED TO AN APPROXIMATE DEPTH OF ¼ – ½ INCH.
9. AFTER SEEDING HAS BEEN COMPLETED, MULCH SHALL BE UNIFORMLY APPLIED AT A RATE OF 2 TONS/ACRE (4,000 LBS/ACRE). MULCH SHALL BE MECHANICALLY CRIMPED TO A DEPTH OF 2 INCHES USING A CRIMPER. MULCH SHALL BE HAND CRIMPED AND COVERED WITH A TACKIFIER IN AREAS WHERE MECHANICAL CRIMPING IS NOT POSSIBLE. WHEN SOILS PERMIT, ALL MULCH SHALL BE CRIMPED SUCH THAT THE INDIVIDUAL PIECES OF STRAW OR HAY FORM EXAGGERATED V–SHAPES PROTRUDING OUT OF THE GROUND SEVERAL INCHES.
10. IN CERTAIN INSTANCES, IT MAY BE NECESSARY TO APPLY A TACKIFIER IN ORDER TO HELP WITH STRAW DISPLACEMENT. TACKIFIER SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SMC 1 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

SEEDING AND MULCHING MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE SEEDING AND MULCHING.
2. ANY SEEDED AND MULCHED AREAS THAT BECOME DAMAGED SHALL BE REPAIRED WITHIN THE TIME FRAME SPECIFIED BY THE TOWN'S INSPECTOR.

WEED MANAGEMENT

1. ALL HERBICIDES SHALL BE APPLIED BY COMMERCIAL PESTICIDE APPLICATORS LICENSED BY THE COLORADO DEPARTMENT OF AGRICULTURE AS QUALIFIED APPLICATORS. THE CONTRACTOR SHALL FURNISH DOCUMENTATION OF SUCH LICENSING PRIOR TO HERBICIDE APPLICATION.
2. HERBICIDE APPLICATION METHOD SHALL BE SUCH THAT PLANT GROWTH OUTSIDE THE DESIGNATED TREATMENT AREAS WILL NOT BE DAMAGED. ALL DAMAGE CAUSED BY IMPROPER HERBICIDE APPLICATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. HERBICIDES SHALL BE APPLIED DURING THE APPROPRIATE SEASONS, WHEN TARGET PLANTS ARE ACTIVELY GROWING.
4. AFTER THE GRASS SEED IS ESTABLISHED, APPROPRIATE HERBICIDES SHALL BE APPLIED TO CONTROL THE REMAINING WEEDS TO ENSURE A TIMELY RETURN OF THE FINANCIAL SECURITY. PROPER TIMING OF HERBICIDE APPLICATIONS ARE NECESSARY TO ACHIEVE THE SUPPRESSION OF WEED SEED PRODUCTION AND DEPLETION OF WEED ROOT MASS. ULTIMATELY, THE HERBICIDES USED SHALL BE BASED UPON THE TARGET WEEDS.
5. HERBICIDE TREATMENTS SHALL CONTINUE AT AN APPROPRIATE RATE UNTIL IT IS EVIDENT THAT WEED GROWTH PRESENCE AND GROWTH IS MINIMAL AND MAY BE CONTROLLED THROUGH MOWING AND/OR ANNUAL HERBICIDE TREATMENT.

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SMC 2 OF 3 Oct. 2013

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TOWN OF PARKER, SEED MIX 1
20% CANADA WILDRYE
15% CRESTED WHEATGRASS
15% SLENDER WHEATGRASS
10% ANNUAL RYEGRASS
10% SHEEP FESCUE
10% BIG BLUESTEM
10% SIDEOATS GRAMA
5% CANADA BLUEGRASS
5% BLUE GRAMA

SEEDING RATE:
DRILLED: 25 LBS/ACRE
BROADCAST: 50 LBS/ACRE

TOWN OF PARKER, SEED MIX 2
22% SLENDER WHEATGRASS
18% SODAR STREAMBANK WHEATGRASS
13% ARIZONA FESCUE
13% BLUE GRAMA
12% BUFFALOGRASS
12% BARLEY OR OATS
5% SPIKE MUHLY
5% INDIAN RICEGRASS

SEEDING RATE:
DRILLED: 25 LBS/ACRE
BROADCAST: 50 LBS/ACRE

TOWN OF PARKER, SEED MIX 3 (LOW-GROWTH MIX)
25% EPHRAM CRESTED WHEATGRASS
23% SHEEP FESCUE
18% PERENNIAL RYEGRASS
13% CANADA BLUEGRASS
12% BARLEY OR OATS
9% BLUE FESCUE

SEEDING RATE:
DRILLED: 25 LBS/ACRE
BROADCAST: 50 LBS/ACRE

SEED MIX 4:
OTHER SEED MIXES APPROVED BY THE TOWN OF PARKER

CBMP — CONSTRUCTION BEST MANAGEMENT PRACTICES — SMC 3 OF 3 Oct. 2013

SHEET NO. C-4.5

COLORADO LICENSED — MICHAEL E. MAY — 58388 — PROFESSIONAL ENGINEER — 08/05/2021

OTB	DATE	PRN	---	JES	PM	KML	DES	KML	DRW
	08/05/2021								

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GallowayUS.com

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MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

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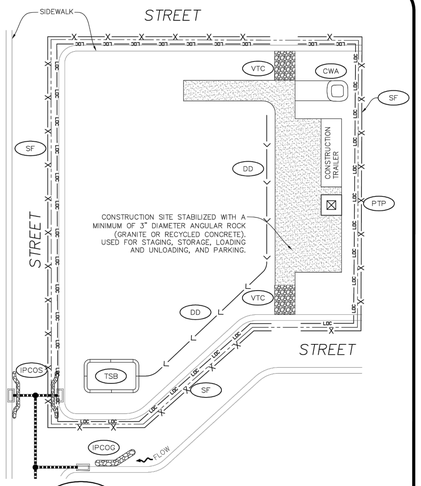


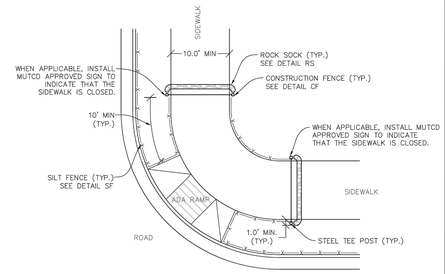
STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH TOWN APPROVAL.
2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND LOADING OPERATIONS.
3. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" DIAMETER OF ANGULAR ROCK (GRANITE OR RECYCLED CONCRETE).
4. SSA FOR SMALLER SITES MAY NOT BE PRACTICAL. IN THESE AND SIMILAR SITUATIONS, VARIANCES MAY BE PERMITTED BY THE TOWN.

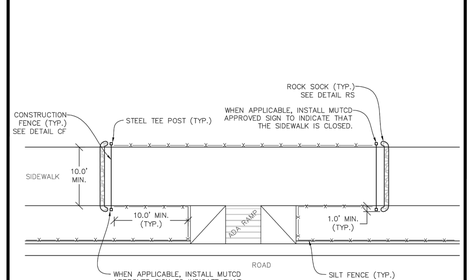
STABILIZED STAGING AREA INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE STAGING AREA.
2. STABILIZED STAGING AREA SHALL BE ENLARGED AS NECESSARY TO CONTAIN PARKING, STORAGE, LOADING, AND UNLOADING.



NOTE:
SEDIMENT CONTROL LOGS (SCL) MAY BE USED IN LIEU OF SILT FENCE (SF) WITH PRIOR APPROVAL FROM TOWN.

SIDEWALK TRANSITION PROTECTION (AT INTERSECTION)



NOTE:
SEDIMENT CONTROL LOGS (SCL) MAY BE USED IN LIEU OF SILT FENCE (SF) WITH PRIOR APPROVAL FROM TOWN.

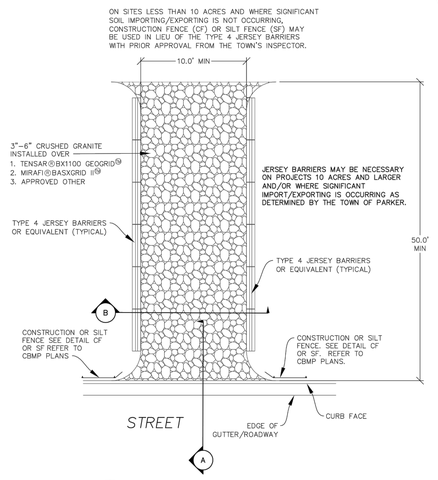
SIDEWALK TRANSITION PROTECTION (ALONG STRAIGHT ROADWAY)

SIDEWALK TRANSITION PROTECTION INSTALLATION NOTES

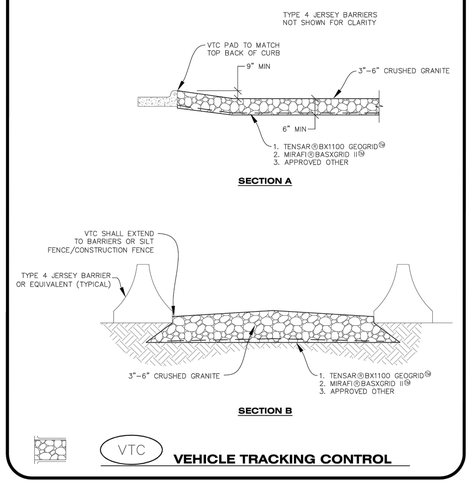
1. SEE PLAN VIEW FOR LOCATION(S) OF SIDEWALK TRANSITION PROTECTION.
2. ROCK SOCK SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL (SEE DETAIL RS).
3. SILT FENCE SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL (SEE DETAIL SF).
4. CONSTRUCTION FENCE SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL (SEE DETAIL CF).
5. SEDIMENT CONTROL LOGS MAY BE USED IS LIEU OF SILT FENCE WITH PRIOR APPROVAL FROM THE TOWN.

SIDEWALK TRANSITION PROTECTION INSPECTION & MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE SIDEWALK TRANSITION INSPECTION.



VEHICLE TRACKING CONTROL



VEHICLE TRACKING CONTROL

VEHICLE TRACKING CONTROL PAD INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF VEHICLE TRACKING CONTROL PAD(S).
2. ALL CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE THROUGH THE APPROVED ACCESS POINT(S). A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL APPROVED ACCESS POINTS TO THE SITE. EXCEPTIONS MAY BE CONSIDERED FOR CONSTRUCTION ACTIVITY OCCURRING IMMEDIATELY ADJACENT TO PAVED AREAS AND WHERE ALTERNATIVE BMP'S ARE IMPLEMENTED. SUCH ACTIVITY MAY INCLUDE, BUT NOT BE LIMITED TO RESIDENTIAL CONSTRUCTION, UTILITY CONSTRUCTION, ETC.
3. THE VEHICLE TRACKING CONTROL PAD(S) INDICATED ON CBMP PLAN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
4. VEHICLE TRACKING CONTROL PADS SHALL BE A MINIMUM OF 50-FEET LONG AND 10-FEET WIDE, UNLESS A VARIANCE HAS BEEN GRANTED BY THE TOWN'S INSPECTOR.
5. A BIAXIAL GEO-GRID SHALL BE PLACED UNDER THE VEHICLE TRACKING CONTROL PAD PRIOR TO THE PLACEMENT OF ROCK. THE AREA SHALL BE FREE FROM ANY VOIDS, ROCKS AND DEBRIS. THE BIAXIAL GEO-GRID SHALL BE TENSAR BX1100, MIRAFI BASXGRID II, OR AN APPROVED EQUAL. GEO-GRID SHALL BE PLACED, AND APPROPRIATELY OVERLAPPED IF NECESSARY, TO COVER THE ENTIRE LENGTH AND WIDTH OF THE VEHICLE TRACKING CONTROL PAD.
6. CRUSHED ROCK SHALL BE A MINIMUM OF 3-6" GRANITE WITH A FRACTURED FACE (ALL SIDES).

VEHICLE TRACKING CONTROL PAD INSTALLATION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE VEHICLE TRACKING CONTROL PAD.
2. WHEN THE VEHICLE TRACKING CONTROL PAD IS REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE VEHICLE TRACKING CONTROL PAD SHALL BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).
3. THE VEHICLE TRACKING CONTROL PAD SHALL BE MAINTAINED SUCH THAT THE ROCK REMAINS RELATIVELY LOOSE AND ACCUMULATED MUD AND OTHER DEBRIS IS REGULARLY REMOVED.

SHEET NO. C-4.6

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

DATE	---	JES	KML	KML
08/05/2021	PRN	PM	DES	DRW

OTB

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CD	CHECK DAM
CF	CONSTRUCTION FENCE
CP	CULVERT PROTECTION
CWA	CONCRETE WASHOUT AREA
D	DEWATERING
DD	DIVERSION DITCH
DP	DETENTION POND PROTECTION
DTC	DEBRIS TRASH CONTROL
ECB	EROSION CONTROL BLANKET
IPAN	INLET PROTECTION FOR AREA INLETS NOT IN PAVEMENT
IPAP	INLET PROTECTION FOR AREA INLETS IN PAVEMENT
IPCOG	INLET PROTECTION, CURB ON-GRADE, TYPE R INLET
IPCOS	INLET PROTECTION, CURB ON SUMP, TYPE R INLET

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | LEGEND 1 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

LP	LOT PROTECTION
MWP	MASONRY WORK PROTECTION
PTP	PORTABLE TOILET PROTECTION
RCSC	ROUGH CUT STREET CONTROL
RS	ROCK SOCK
RSS	ROCK SOCK IN SWALE
SB	STRAW BALE
SCL	SEDIMENT CONTROL LOGS
SF	SILT FENCE
SMC	SEEDING, MULCHING AND CRIMPING
SR	SURFACE ROUGHING
SSA	STABILIZED STAGING AREA
STP	SIDEWALK TRANSITION PROTECTION

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | LEGEND 2 OF 3 Oct. 2013

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TI	TEMPORARY IRRIGATION
TSB	TEMPORARY SEDIMENT BASIN
VTC	VEHICLE TRACKING CONTROL

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | LEGEND 3 OF 3 Oct. 2013

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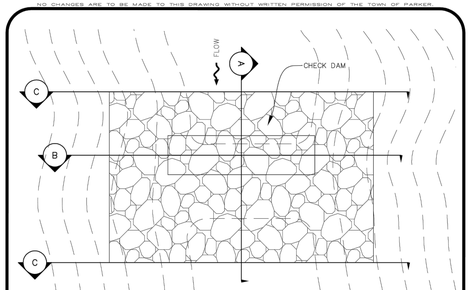
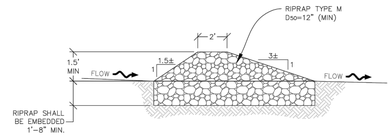


PLAN VIEW



SECTION A

CD CHECK DAM

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | CD 1 OF 3 Oct. 2013

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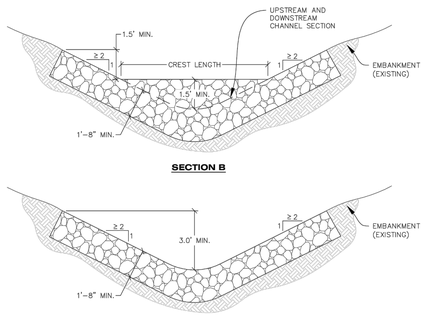
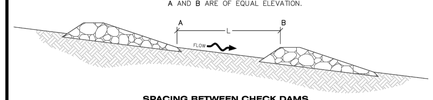


SECTION B

SECTION C

NOTE: SECTION C IS LOCATED IMMEDIATELY UPSTREAM AND DOWNSTREAM OF THE CHECK DAM, THEREFORE NO ROCK IS SHOWN WITHIN THE CHANNEL FLOW AREA.

L = THE DISTANCE SUCH THAT POINT **A** AND **B** ARE OF EQUAL ELEVATION.



SPACING BETWEEN CHECK DAMS

CD CHECK DAM

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | CD 2 OF 3 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION(S) OF CHECK DAMS.
2. CHECK DAMS SHOWN ON CBMP PLAN SHALL BE INSTALLED WHEN DIRECTED BY THE TOWN'S INSPECTOR.
3. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D50 MEDIAN STONE SIZE OF 12".
4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-8".
5. THE MAXIMUM SPACING BETWEEN CHECK DAMS SHOULD BE SUCH THAT THE BOTTOM OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM AS SHOWN IN THE DETAIL.

CHECK DAM INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE CHECK DAMS.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE SEDIMENT HAS REACHED A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE CREST OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
3. CHECK DAMS SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
4. WHEN CHECK DAMS ARE REMOVED, THE TOWN'S INSPECTOR MAY REQUIRE EXCAVATIONS TO BE FILLED WITH SUITABLE COMPACTED TOPSOIL AND ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE CHECK DAMS BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).
5. IN SOME INSTANCES, CHECK DAMS MAY REMAIN IN PLACE PERMANENTLY.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | CD 3 OF 3 Oct. 2013

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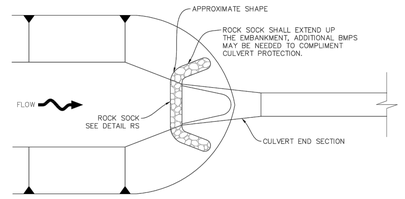
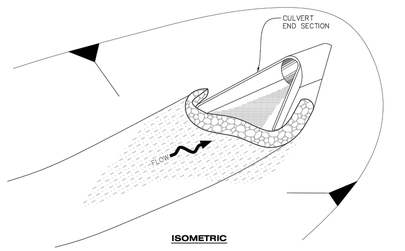


PLAN



ISOMETRIC

CP CULVERT PROTECTION (INLET)

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | CP 1 OF 2 Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

CULVERT PROTECTION (INLET) INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION(S) OF CULVERT PROTECTION (INLET).
2. ROCK SOCK SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL (SEE DETAIL RS).
3. ROCK SOCK SHALL BE APPROXIMATELY 12" IN DIAMETER.
4. ROCK SOCK SHALL EXTEND ABOVE THE FLOW LINE ELEVATION ON BOTH SIDES OF THE CULVERT END SECTION.

CULVERT PROTECTION (INLET) INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE CULVERT PROTECTION (INLET).
2. AT A MINIMUM, ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE SEDIMENT HAS REACHED A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE ROCK SOCK.
3. CULVERT PROTECTION (INLET) IS TO REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
4. WHEN THE CULVERT INLET PROTECTION IS REMOVED, THE TOWN'S INSPECTOR MAY REQUIRE ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE CULVERT INLET PROTECTION TO BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | CP 2 OF 2 Oct. 2013

SHEET NO. C-4.7

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

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	08/05/2021	PRN	PM	DES	DRW

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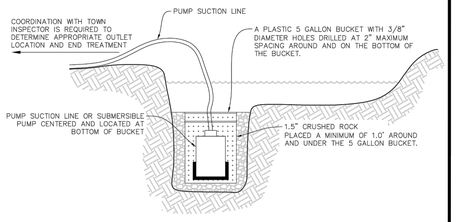


TYPICAL DEWATERING SUMP

NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE APPROPRIATE MEASURES TO PROTECT PUMPING EQUIPMENT AND MINIMIZE SEDIMENT. USE OF A PLASTIC 5 GALLON BUCKET IS SUGGESTED BUT NOT REQUIRED. THE CONTRACTOR SHALL NOT HOLD THE TOWN LIABLE FOR DAMAGE TO PUMPING EQUIPMENT REGARDLESS OF METHODS USED.

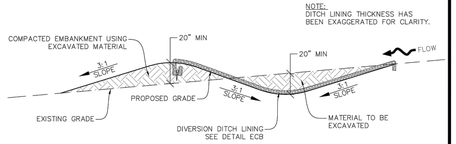
D **DEWATERING**

DEWATERING INSTALLATION NOTES

1. IT IS THE EROSION CONTROL SUPERVISOR'S RESPONSIBILITY TO ENSURE THAT ALL DEWATERING IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE).

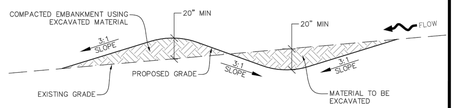
DEWATERING MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL INSPECT THE DEWATERING OPERATION TO ENSURE THAT THE DISCHARGE WATER IS DRAINING TO THE PROPER LOCATION(S) AND PERFORM ANY NECESSARY REPAIRS OR MAINTENANCE ON A FREQUENT BASIS.



DIVISION DITCH GEOMETRY AND REQUIRED LINING MATERIAL SHALL BE OBTAINED FROM ASSOCIATED CBMP PLANS VIA THE DESIGN ENGINEER. IF THIS INFORMATION IS NOT PROVIDED ON THE CBMP PLANS, THE CONTRACTOR SHALL NOTIFY THE TOWN PRIOR TO CONSTRUCTION

DIVERSION DITCH SECTION LINED CHANNEL



DIVERSION DITCH SECTION UNLINED CHANNEL

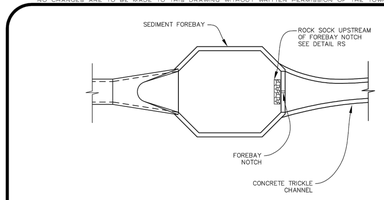
DD **DIVERSION DITCH**

DIVERSION DITCH INSTALLATION NOTES

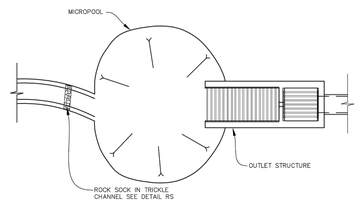
1. SEE THE PLAN VIEW FOR THE LOCATION(S) OF THE DIVERSION DITCHES.
2. A PLASTIC LINER, RIPRAP, OR EROSION CONTROL BLANKET MAY BE NECESSARY TO PROTECT THE DIVERSION DITCH. THE REQUIRED LINING MATERIAL SHALL BE OBTAINED FROM THE CBMP PLANS VIA THE DESIGN ENGINEER.
3. ALL MATERIAL EXCAVATED FROM THE DITCH MAY BE USED TO CONSTRUCT THE BERM ON THE DOWNHILL SIDE OF THE DITCH.
4. THE DIVERSION DITCH SHALL BE A MINIMUM OF 20" DEEP WITH APPROX. 3:1 SIDE SLOPES. THE ADJACENT BERM SHALL BE A MINIMUM OF 20" IN HEIGHT WITH APPROX. 3:1 SIDE SLOPES. ALL EMBANKMENTS SHALL BE FIRMLY COMPACTED.
5. THE DISCHARGE FROM THE DIVERSION DITCH SHALL BE DIRECTED TOWARDS AN APPROPRIATELY SIZED TEMPORARY SEDIMENT BASIN OR OTHER APPROVED AREA.

DIVERSION DITCH INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE DIVERSION DITCH.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE THE SEDIMENT HAS REACHED A DEPTH EQUAL TO 1/2 (10") THE CREST HEIGHT.
3. DIVERSION DITCHES SHALL BE RE-GRADED FOLLOWING THE SIGNS OF MODERATE OR MORE SOIL EROSION OR ANY DAMAGE.
4. DIVERSION DITCHES ARE TO REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR. ALTERNATIVELY, THE DIVERSION DITCHES MAY BE REMOVED WHEN THE SITE'S TOPOGRAPHY CHANGES SUCH THAT SIGNIFICANT RUNOFF IS NO LONGER POSSIBLE. IN SOME INSTANCES, THE DIVERSION DITCHES MAY REMAIN IN PLACE PERMANENTLY.



FOREBAY



OUTLET / MICROPOOL

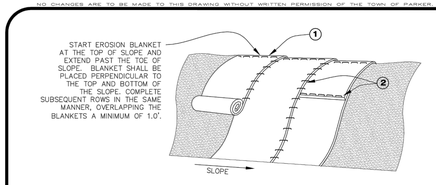
DP **DETENTION POND PROTECTION**

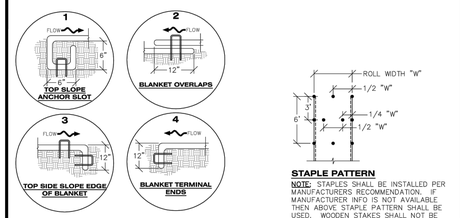
DETENTION POND PROTECTION INSTALLATION NOTES

1. DETENTION POND PROTECTION SHALL BE INSTALLED IMMEDIATELY FOLLOWING THE CONSTRUCTION OF THE TRICKLE CHANNEL AND FOREBAY.
2. CRUSHED ROCK SHALL BE 2.0"–3.0" IN SIZE WITH A FRACTURED FACE (ALL SIDES).
3. ROCK SOCK FOR OUTLET STRUCTURE AND FOREBAY PROTECTION SHALL BE ONE CONTINUOUS PIECE (SEE DETAIL RS).

DETENTION POND PROTECTION INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE OUTLET STRUCTURE PROTECTION.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED IMMEDIATELY.
3. OUTLET STRUCTURE PROTECTION SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.



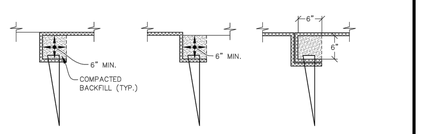


STAPLE PATTERN

NOTE: STAPLES SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATION. IF MANUFACTURER INFO IS NOT AVAILABLE THEN ABOVE STAPLE PATTERN SHALL BE USED. WOODEN STAKES SHALL NOT BE USED FOR EROSION CONTROL BLANKET ON SLOPES.

NOTE:
WHEN NECESSARY, ALL SEEDING SHALL BE COMPLETED PRIOR TO THE PLACEMENT OF EROSION CONTROL BLANKETS. PLEASE SEE DETAIL SMC FOR SEEDING, MULCHING, AND CRIMPING REQUIREMENTS.

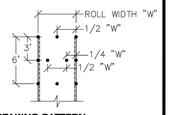
ECB **EROSION CONTROL BLANKET (SLOPE)**



TOE OF SLOPE ANCHOR TRENCH | **TOP OF SLOPE ANCHOR TRENCH** | **JOINT ANCHOR TRENCH** USED TO JOIN BLANKETS TOGETHER (LONGITUDINAL)

SAW 2" x 4" LUMBER ON DIAGONAL

WOOD STAKE DETAIL
ALTERNATIVE WOOD STAKE PRODUCTS MAY BE USED WITH APPROVAL FROM THE TOWN.



STAKING PATTERN

NOTE: STAKES SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATION. IF MANUFACTURER INFO IS NOT AVAILABLE THEN ABOVE STAKING PATTERN SHALL BE USED. STAPLES SHALL NOT BE USED FOR EROSION CONTROL BLANKET IN CHANNELS.

NOTES:
1. WOOD STAKES SHALL BE INSTALLED SUCH THAT ONLY 1" IS EXPOSED ABOVE THE GROUND.
2. WHEN NECESSARY, ALL SEEDING SHALL BE COMPLETED PRIOR TO THE PLACEMENT OF EROSION CONTROL BLANKETS. PLEASE SEE DETAIL SMC FOR SEEDING, MULCHING, AND CRIMPING REQUIREMENTS.

ECB **EROSION CONTROL BLANKET (CHANNEL)**

SHEET NO. C-4.8

COLORADO LICENSED MICHAEL E. MAY 58388 PROFESSIONAL ENGINEER 08/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

CBMP DETAILS
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303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

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EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE THE PLAN VIEW FOR THE LOCATION(S) OF THE EROSION CONTROL BLANKETS.
2. EROSION CONTROL BLANKETS USED FOR CHANNEL PROTECTION SHALL BE PROPERLY SELECTED BY THE DESIGN ENGINEER BASED ON CURRENT AND FUTURE FLOW RATES WITHIN THE CHANNEL. BASED ON THESE CALCULATIONS, TURF REINFORCEMENT MATTING OR RIPRAP MAY BE NECESSARY IN LIEU OF EROSION CONTROL BLANKETS.
3. IMMEDIATELY PRIOR TO BLANKET INSTALLATION, SOIL SURFACE SHALL BE SMOOTH, AND FREE OF ANY GAPS, VOIDS, WEEDS, ROCKS, STICKS, OR OTHER MISCELLANEOUS DEBRIS.
4. EROSION CONTROL BLANKET SHALL THEN BE INSTALLED ACCORDING TO THE DETAILED DRAWINGS.
5. ANY DAMAGED OR REMAINING STAPLES OR STAKES SHALL BE REMOVED FROM THE SITE.
6. ALL EROSION CONTROL BLANKETS FOR SLOPE PROTECTION INSTALLED IN THE TOWN SHALL BE DOUBLE NET, STRAW OR EXCELSIOR.

MANUFACTURER	PRODUCT NAME
NORTH AMERICAN GREEN	S150
APPROVED EQUAL	APPROVED EQUAL

7. IN MOST CASES, EROSION CONTROL BLANKETS FOR SLOPE PROTECTION ARE TO REMAIN IN PLACE PERMANENTLY.

EROSION CONTROL BLANKET MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE EROSION CONTROL BLANKETS AND MAKE ANY NECESSARY REPAIRS.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | ECB | 3 OF 3 | Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

AREA INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION(S) OF AREA INLET PROTECTION.
2. THE AREA INLET PROTECTION SHOWN ON CBMP PLANS SHALL BE INSTALLED ON EXISTING INLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES OR IMMEDIATELY AFTER THE INSTALLATION OF NEW INLETS. AN INTERIM STYLE OF INLET PROTECTION MAY BE ALLOWED UNTIL THE INSTALLATION OF THE GUTTER AND/OR PAVEMENT.

AREA INLET PROTECTION INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE AREA INLET PROTECTION.
2. AREA INLET PROTECTION SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
3. WHEN THE AREA INLET PROTECTION IS REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE AREA INLET PROTECTION MAY NEED TO BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).
4. ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS POSSIBLE, IMMEDIATELY IN MOST CASES.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPA | 1 OF 1 | Oct. 2013

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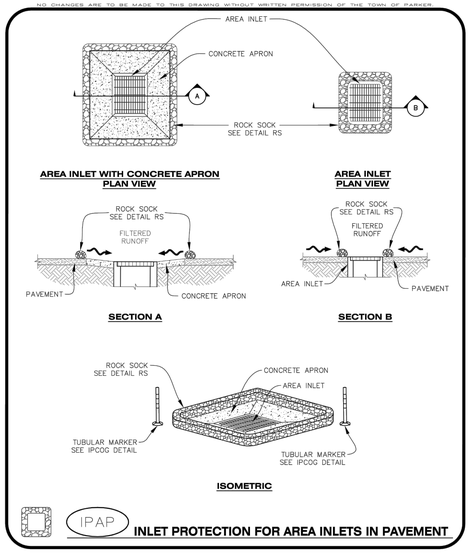
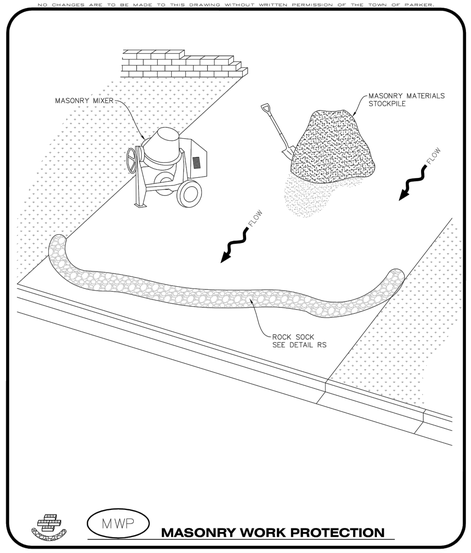


IPAP **INLET PROTECTION FOR AREA INLETS IN PAVEMENT**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | IPAP | 1 OF 1 | Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.



MWP **MASONRY WORK PROTECTION**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | MWP | 1 OF 2 | Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

MASONRY WORK PROTECTION INSTALLATION NOTES

1. MASONRY WORK PROTECTION MAY NEED TO BE INSTALLED WHEN MASONRY WORK AND MIXING IS OCCURRING.
2. A ROCK SOCK SHALL BE INSTALLED IN A CRESCENT SHAPE ON THE DOWNHILL SIDE OF THE MASONRY WORK AND MIXER.
3. CRUSHED ROCK SHALL BE 2.0"–3.0" IN SIZE WITH A FRACTURED FACE (ALL SIDES).
4. ROCK SOCK SHALL BE ONE CONTINUOUS PIECE OR SHALL BE CONSTRUCTED USING WIRE WRAPPED JOINTS (SEE DETAIL RS).
5. ROCK SOCK SHALL BE CONSTRUCTED USING CHICKEN WIRE OR OTHER APPROVED MATERIAL, SIZED TO KEEP ROCK FROM SPILLING OUT.

MASONRY WORK PROTECTION INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE MASONRY WORK PROTECTION.
2. ALL CONCRETE WASTE SHALL BE REGULARLY CLEANED AND PLACED IN THE CONCRETE WASH OUT AREA.
3. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | MWP | 2 OF 2 | Oct. 2013

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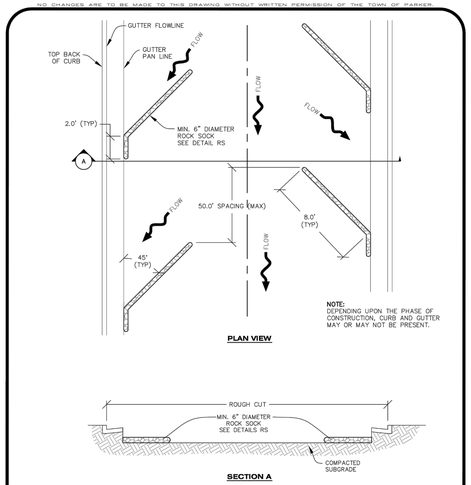

RCSC **ROUGH CUT STREET CONTROL**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | RCSC | 1 OF 2 | Oct. 2013

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

ROUGH CUT STREET CONTROL INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF ROUGH CUT STREET CONTROL.
2. THE SPACING OF THE ROUGH CUT STREET CONTROL MAY BE DETERMINED BY THE DESIGN ENGINEER AND SHOWN ON THE CBMP PLAN.

ROUGH CUT STREET CONTROL INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE ROUGH CUT STREET CONTROL.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1/2 THE HEIGHT OF THE ROCK SOCK.
3. ROUGH CUT STREET CONTROL SHALL BE REPAIRED IMMEDIATELY FOLLOWING ANY SIGN OF WEAR OR ALTERATION OF THE ORIGINAL SHAPE AND DIMENSIONS.
4. ROUGH CUT STREET CONTROL SHALL BE KEPT IN PLACE AND MAINTAINED UNTIL SUB-GRADE PREPARATION BEGINS FOR PAVING. AT THAT POINT, THE RCSC SHOULD BE REMOVED IN INCREMENTS BASED ON SUBGRADE PREPARATION.

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | RCSC | 2 OF 2 | Oct. 2013

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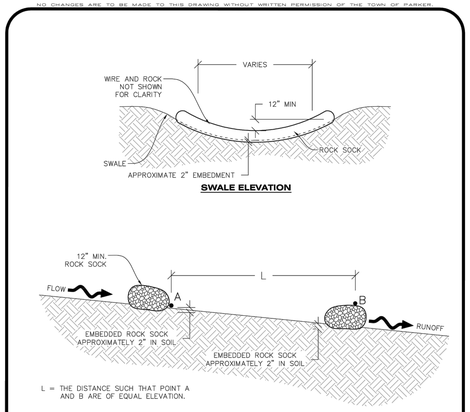

RSS **ROCK SOCK IN SWALE**

Town of Parker COLORADO | CBMP CONSTRUCTION BEST MANAGEMENT PRACTICES | RSS | 1 OF 1 | Oct. 2013

SHEET NO. C-4.9

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

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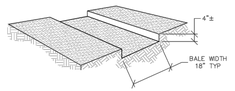
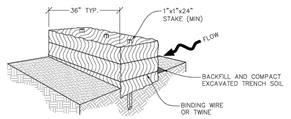
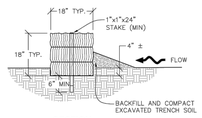


TRENCH EXCAVATION



STRAW BALE INSTALLATION



SECTION

SB **STRAW BALE**

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

STRAW BALE INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF STRAW BALES.
2. TYPICAL STRAW BALES SHALL BE APPROXIMATELY 36"X18"X18".
3. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE A MINIMUM OF 1"X1"X24".
4. WOODEN STAKES SHALL BE PLACED APPROXIMATELY 6" INTO THE GROUND.
5. STRAW BALES SHALL BE SPACED AND POSITIONED ACCORDING TO DETAILS.

STRAW BALE INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE STRAW BALES.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE THE SEDIMENT HAS REACHED A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE STRAW BALE.
3. STRAW BALES MAY NEED TO BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN, OR OTHERWISE DAMAGED.
4. STRAW BALES SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR OR AS OTHERWISE DIRECTED BY THE TOWN INSPECTOR.
5. WHEN THE STRAW BALES ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE STRAW BALES MAY NEED TO BE ROUGHENED, SEEDED, MULCHED, AND CRIMPED PER THE TOWN'S SPECIFICATIONS (SEE DETAIL SMC).

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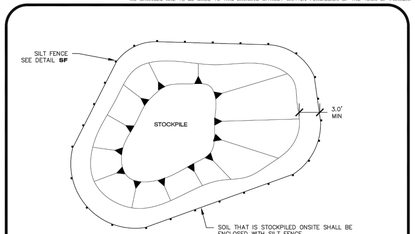

SP **STOCKPILE PROTECTION**

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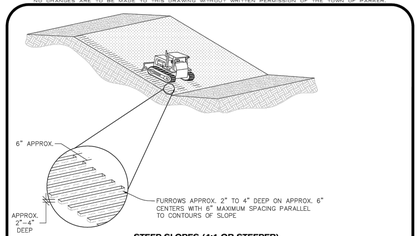

STEEP SLOPES (4:1 OR STEEPER)
(SLOPES STEEPER THEN 4:1 MAY BE SURFACE ROUGHENED IF THE CONTRACTOR FEELS THAT IT IS SAFE TO DO SO)

LESSER SLOPES (4:1 OR LESS)

SR **SURFACE ROUGHING**

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

SURFACE ROUGHENING INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF SURFACE ROUGHENING.
2. DISTURBED AREAS THAT REMAIN INACTIVE FOR 15 DAYS OR MORE MUST RECEIVE SURFACE ROUGHENING OR ANOTHER APPROVED BMP FROM THE SDECM. DETERMINATION OF JOB SITE INACTIVITY IS AT THE DISCRETION OF THE TOWN'S INSPECTOR.
3. FOR STEEP SLOPES (3:1 OR STEEPER), IT IS ACCEPTABLE TO "TRACK" THE SLOPES, ACCORDING TO THE CBMP DETAILS.
4. SCHEDULES FOR REQUIRING STABILIZATION MAY BE MODIFIED BY THE PERMITTEE TO ALLOW FOR SPECIAL CONSIDERATIONS SUCH AS STABILIZING ACCESS AREAS AND AREAS IN CLOSE PROXIMITY TO CONTINUING CONSTRUCTION.

SURFACE ROUGHENING INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL PROACTIVELY INSPECT THE SURFACE ROUGHENING.

To allow for a proper and timely establishment of native grasses, temporary irrigation is required over all areas where permanent native seeding is proposed. This includes, but is not limited to: detention ponds, drainageways, park and trail areas, general open space, etc. **In addition to the landscape plans, please show the temporary irrigation symbol (TI) on the CBMP Plan over all areas where permanent native seeding is proposed.** As a reminder, when working within Parker Water and Sanitation District's (PWSD) jurisdiction, the following is required:

- Temporary irrigation for native seed must be supplied by a fire hydrant hook-up. Use of proposed/existing landscape irrigation taps is not allowed. Please indicate on the irrigation plans fire hydrants that are to be used for the temporary irrigation mainline and provide a detail for the connection. This detail should show the hydrant, PRV, PWSD water meter, a 2" backflow assembly, a 2" x 2" cam lock for fire department quick disconnect and a support system for all components
- The following note must be shown on the Irrigation plan set "Temporary irrigation for establishment of native vegetation must be installed above ground, and removed immediately after establishment is complete, or in no case, any longer than one growing season." PWSD may allow temporary irrigation to continue for one additional growing season with prior approval.
- The following note must be shown on the Irrigation plan set "All temporary irrigation components including but not limited to mainlines, laterals, valves, heads and quick couplers must be installed above ground."
- All temporary irrigation components including but not limited to mainlines, laterals, valves, heads and quick couplers must be clearly labeled on the plans.
- Provide detail drawings for all above ground components including but not limited to mainlines, laterals, valves, heads and quick couplers.

If the project is outside of PWSD's jurisdiction, check with the applicable water provider regarding their specific requirements for temporary irrigation.

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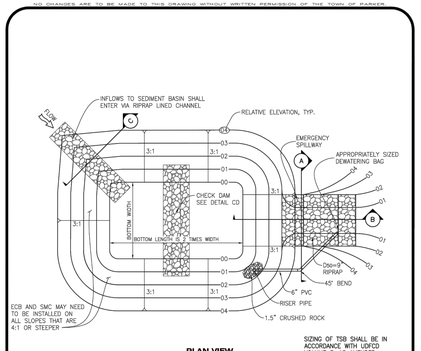
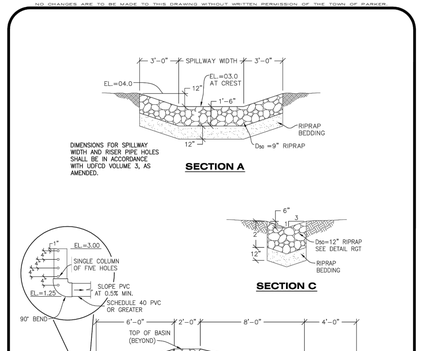


PLAN VIEW

SIZING OF TSB SHALL BE IN ACCORDANCE WITH UDFCD VOLUME 3, AS AMENDED.

TSB **TEMPORARY SEDIMENT BASIN**

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.



SECTION A

SECTION C

SECTION B

TSB **TEMPORARY SEDIMENT BASIN**

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

TEMPORARY SEDIMENT BASIN INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION(S) OF SEDIMENT BASIN(S).
2. THE TEMPORARY SEDIMENT BASIN(S) SHALL BE INSTALLED AND FUNCTIONING PRIOR TO ANY OTHER GRADING ACTIVITIES.
3. THE EXACT DIMENSIONS AND DETAILS OF THE TEMPORARY SEDIMENT BASIN SHALL BE DETERMINED BY THE DESIGN ENGINEER, IN ACCORDANCE WITH UDFCD VOLUME 3, AS AMENDED.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3" AND SHALL HAVE A MINIMUM OF 15% BY WEIGHT PASSING THE NO. 200 SIEVE.
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% DENSITY, AND WITHIN +/– 2% OF OPTIMUM MOISTURE IN ACCORDANCE WITH ASTM D698.
6. AN APPROPRIATELY SIZED DEWATERING BAG SHALL BE SECURED TO THE END OF THE DISCHARGE PIPE. THE DEWATERING BAG SHALL BE REPLACED ONCE SEDIMENT ACCUMULATION REACHES 50%.

TEMPORARY SEDIMENT BASIN INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE TEMPORARY SEDIMENT BASIN.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT REACHES A DEPTH OF 2.0', OR WITHIN 2.0' OF THE SPILLWAY CREST, OR AS OTHERWISE DIRECTED BY THE TOWN'S INSPECTOR.
3. SEDIMENT BASINS SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL UPSTREAM VEGETATIVE COVER HAS REACHED A CONSISTENT DENSITY OF AT LEAST 70% OF FULL VEGETATIVE COVER AND EROSION AND SEDIMENTATION IS NO LONGER A POSSIBILITY AS DETERMINED BY THE TOWN'S INSPECTOR.

T-2 Grass Swale

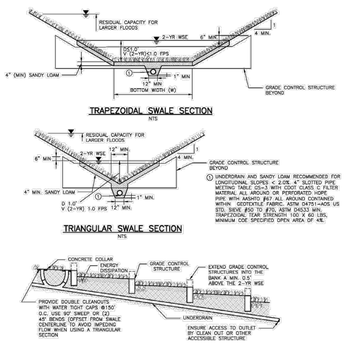


Figure GS-1. Grass Swale Profile and Sections

Design Example

The *UD-BMP* workbook, designed as a tool for both designer and reviewing agency is available at www.udfcd.org. This section provides a completed design form from this workbook as an example.

SHEET NO. C-4.10

COLORADO LICENSED MICHAEL E. MAY PROFESSIONAL ENGINEER 58388 08/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

CBMP DETAILS
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12405 SOUTH PARKER ROAD
PARKER COLORADO

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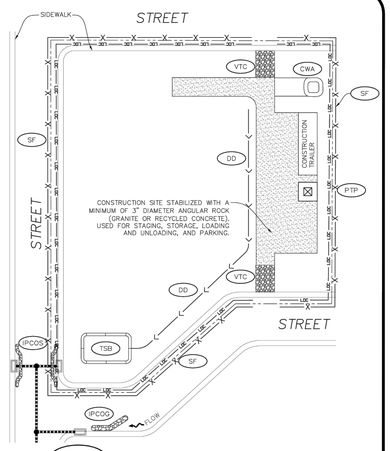
MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.



STABILIZED STAGING AREA

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

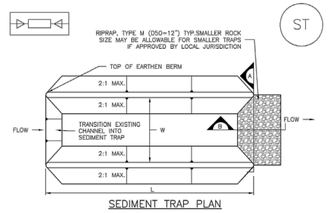
STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE CBMP PLAN FOR LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH TOWN APPROVAL.
2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND LOADING OPERATIONS.
3. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" DIAMETER OF ANGULAR ROCK (GRANITE OR RECYCLED CONCRETE).
4. SSA FOR SMALLER SITES MAY NOT BE PRACTICAL. IN THESE AND SIMILAR SITUATIONS, VARIANCES MAY BE PERMITTED BY THE TOWN.

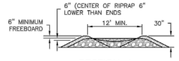
STABILIZED STAGING AREA INSPECTION AND MAINTENANCE NOTES

1. THE EROSION CONTROL SUPERVISOR SHALL REGULARLY INSPECT THE STAGING AREA.
2. STABILIZED STAGING AREA SHALL BE ENLARGED AS NECESSARY TO CONTAIN PARKING, STORAGE, LOADING, AND UNLOADING.

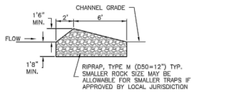
SC-8 Sediment Trap (ST)



SEDIMENT TRAP PLAN



SECTION A



SECTION B

ST-1, SEDIMENT TRAP

Sediment Trap (ST) SC-8

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.
2. ONLY USE FOR DRAINAGE AREAS LESS THAN 1 ACRE.
3. SEDIMENT TRAPS SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND–DISTURBING ACTIVITIES.
4. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
5. SEDIMENT TRAP OUTLET TO BE CONSTRUCTED OF RIPRAP, TYPE M (D50=12") TYP.SMALLER ROCK SIZE MAY BE ALLOWABLE FOR SMALLER TRAPS IF APPROVED BY LOCAL JURISDICTION.
6. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
7. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE A MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE.

SEDIMENT TRAP 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. REMOVE SEDIMENT ACCUMULATED IN TRAP AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN THE SEDIMENT DEPTH REACHES ½ THE HEIGHT OF THE RIPRAP OUTLET.
5. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
6. WHEN SEDIMENT TRAPS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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.

SHEET NO. C-4.11

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/01/2021

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	08/05/2021	---	PM	DES
				DRW

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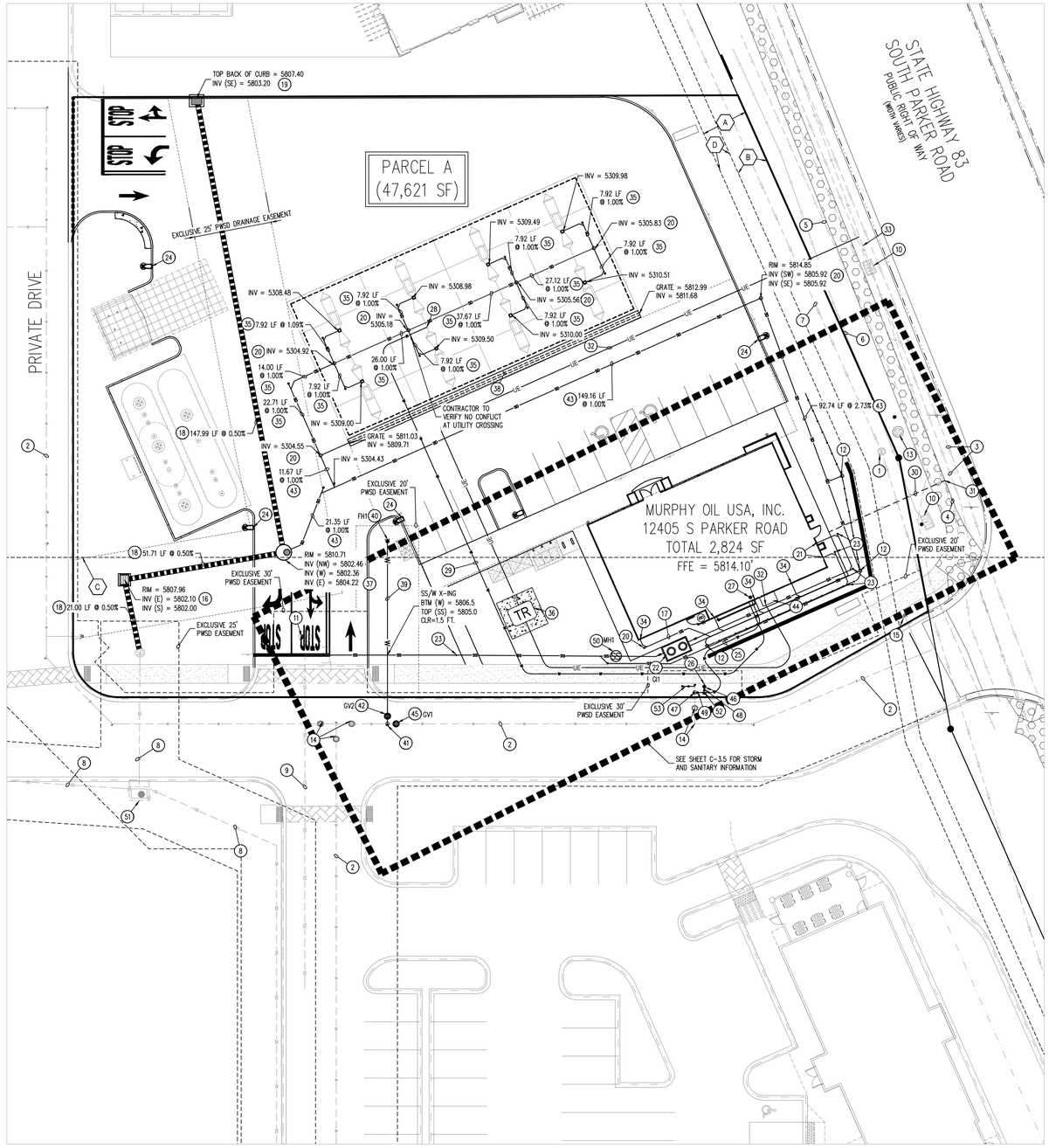

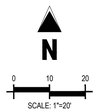

SCHEDULE

1. EXISTING STORM SEWER MANHOLE TO REMAIN
2. EXISTING WATER LINE INSTALLED BY DEVELOPER
3. EXISTING CATV LINE TO REMAIN
4. EXISTING UNDERGROUND TELEPHONE LINE TO REMAIN
5. EXISTING GAS LINE TO REMAIN
6. EXISTING FIBER OPTIC LINE TO REMAIN
7. EXISTING STORM LINE TO REMAIN
8. EXISTING STORM LINE INSTALLED BY DEVELOPER
9. EXISTING SANITARY SEWER LINE INSTALLED BY DEVELOPER
10. EXISTING COMMUNICATION BOX/VAULT TO REMAIN
11. EXISTING SANITARY SEWER MANHOLE PROVIDED BY DEVELOPER
12. PROPOSED YARD DRAIN WITH OPEN GRATE TOP (REFERENCE STORM DETAIL 25Y)
13. EXISTING SANITARY SEWER MANHOLE TO REMAIN
14. EXISTING 8" WATER STUB AND VALVE INSTALLED BY DEVELOPER
15. EXISTING FIRE HYDRANT TO REMAIN
16. PROPOSED CDOT TYPE C INLET
17. PROPOSED 4" STORM SEWER LINE (REFERENCE STORM PLANS)
18. PROPOSED 18" STORM SEWER LINE (REFERENCE STORM PLANS)
19. PROPOSED CDOT TYPE 13 INLET
20. PROPOSED STORM CLEANOUT (REFERENCE STORM DETAILS)
21. PROPOSED 4" SANITARY SEWER SERVICE LINE (REFERENCE SANITARY PLANS)
22. PROPOSED 1,000 GALLON GREASE INTERCEPTOR (REFERENCE SITE DETAILS)
23. PROPOSED SANITARY SEWER CLEANOUT (TYP) (REFERENCE SITE DETAIL 40C)
24. PROPOSED SITE LIGHT POLE. SEE PHOTOMETRIC PLAN FOR POLE BASE DETAIL, FIXTURE TYPE, AND MOUNTING DETAILS.
25. PROPOSED 1 1/2" DOMESTIC WATER SERVICE LINE TO BUILDING
26. PROPOSED 3/4" IRRIGATION LINE (REFERENCE IRRIGATION PLANS)
27. PROPOSED 1 1/2" INTERIOR SET WATER METER AND BACKFLOW
28. PROPOSED FREEZELESS HOSE BIBB AT PUMP ISLAND (3/4" SCH. 40 PVC) (REFERENCE SITE DETAIL 20A)
29. PROPOSED 3/4" WATER LINE TO CANOPY
30. PROPOSED UNDERGROUND TELEPHONE LINE. PLACE HAND HOLES AS NEEDED. COORDINATE WITH CENTURYLINK.
31. CONNECTION TO EXISTING TELEPHONE LINE TO BE COORDINATED WITH CENTURYLINK.
32. PROPOSED UNDERGROUND ELECTRICAL LINE. COORDINATE WITH IREA.
33. CONNECTION TO EXISTING ELECTRICAL LINE TO BE COORDINATED WITH IREA
34. PROPOSED ROOF DRAIN CONNECTION (REFERENCE STORM DETAILS)
35. PROPOSED 6" PVC ROOF DRAIN LINE
36. PROPOSED TRANSFORMER ON CONCRETE PAD TO BE COORDINATED WITH IREA
37. PROPOSED STORM MANHOLE (REFERENCE STORM PLAN & PROFILE)
38. PROPOSED 8" TRENCH DRAIN (REFERENCE STORM PLAN & PROFILE)
39. PROPOSED 6" PVC LATERAL FIRE HYDRANT
40. PROPOSED FIRE HYDRANT FH#
41. PROPOSED 8"x 6" TEE
42. PROPOSED 6" GATE VALVE GV#
43. PROPOSED 10" ROOF DRAIN (REFERENCE STORM PLAN & PROFILE)
44. PROPOSED ELECTRICAL CABINET PER IREA REQUIREMENTS
45. PROPOSED 8" GATE VALVE GV#2
46. PROPOSED 3/4" IRRIGATION METER (REFERENCED IRRIGATION PLANS)
47. PROPOSED 1.5" TAP ON EXISTING 8" STUB
48. PROPOSED 3/4" CURB STOP
49. PROPOSED 1 1/2" CURB STOP
50. PROPOSED SANITARY SEWER SAMPLING MANHOLE (REFERENCE PWSD DETAIL SS.3)
51. EXISTING STORM SEWER INLET INSTALLED BY DEVELOPER
52. PROPOSED 1.5" X 3/4" TEE
53. PROPOSED 2" BLOW OFF ASSEMBLY FROM EX 8" STUB

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

UTILITY INSTALLATION RESPONSIBILITIES

WATER SERVICE:
- CONTRACTOR TO PROVDE AND INSTALL TAP AND BACKFLOW DEVICES.
- CONTRACTOR TO PROVDE AND INSTALL CONNECTION TO BACK SIDE OF METER, INCLUDING FITTINGS, VALVES, CURB STOP, CURB BOX, RPZ (ON IRRIGATION MAIN), WATER SERVICE MAINS, ETC. FOR IRRIGATION AND DOMESTIC SERVICE.

SEWER SERVICE:
- CONTRACTOR TO PROVDE AND INSTALL GRAVITY SERVICE LINES, GREASE TRAP, CONNECTION TO EXISTING STUBOUT, ETC.

ELECTRIC SERVICE:
- ELECTRIC COMPANY PROVIDES AND INSTALLS POLE MOUNTED TRANSFORMER.
- CONTRACTOR TO PROVDE & INSTALL 1–5" SCH. 40 CONDUIT WITH PULL STRINGS AND SWEEPS (36" R.) ALONG USE ROUTE FROM TRANSFORMER POLE TO BUILDING ENTRY POINT.
- CONTRACTOR TO PROVDE AND INSTALL SECONDARY WIRE FROM TRANSFORMER TO BUILDING.

TELEPHONE SERVICE:
- TELEPHONE COMPANY WILL PROVIDE, INSTALL AND PULL WIRE TO BUILDING.
- CONTRACTOR TO INSTALL 4" CONDUIT WITH PULL-STRING FROM BUILDING TO POINT OF CONNECTION.
- TURNS SHALL UTILIZE SWEEPING 90°S (36" R).
- CONTRACTOR TO PROVIDE #6 GROUND WIRE CONNECTED TO ELECTRICAL GROUND AND 4'X8' MOUNTED PLYWOOD BACKBOARD INSIDE BUILDING FOR TELEPHONE COMPANY TO MOUNT EQUIPMENT.
- CONTACT ATT TWO (2) WEEKS PRIOR TO NEEDING SERVICE.

UTILITY INSTALLATION RESPONSIBILITIES

ELECTRIC RESPONSIBILITY

	GENERAL CONTRACTOR	UTILITY PROVIDER	N/A
PERMITS AND INSPECTIONS	X		
OVERHEAD SERVICE DROP		X	
SERVICE CONNECTION		X	
SERVICE ENTRANCE CONDUIT, CONDUCTOR, AND OH POINT OF ATTACHMENT	X		
METER SOCKET	X		
BILLING METER		X	
LOAD SIDE CONDUIT AND CONDUCTOR	X		
ICE AND SNOW SHIELD, IF REQUIRED	X		
GROUND ROD(S)	X		

TELEPHONE RESPONSIBILITY

	GENERAL CONTRACTOR	UTILITY PROVIDER	N/A
CONDUIT/TRENCH	X		
PULL STRING	X		

WATER RESPONSIBILITY

	GENERAL CONTRACTOR	UTILITY PROVIDER	N/A
TAP	X		
DOMESTIC METER		X	
DOMESTIC BFP	X		
IRRIGATION METER		X	
IRRIGATION BFP	X		
HYDRANT		X	

SEWER RESPONSIBILITY

	GENERAL CONTRACTOR	UTILITY PROVIDER	N/A
TAP	X		

FIRE CODE REVIEW BLOCK

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

FIRE CODE OFFICIAL or DESIGNATED REPRESENTATIVE (DATE)

(NOTE – UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

GENERAL UTILITY NOTES

1. ALL BUILDING WATER LINES FROM METER TOWARDS BUILDING SHALL BE SCHEDULE 40 PVC MEETING ASTM D1785 & D2665 SPECIFICATIONS AND SHALL BE RATED FOR USE WITH POTABLE WATER PER NSF ST. 61 WITH 36" MIN. COVER.
2. ALL SANITARY SEWER LINES SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, PROVIDE 36" MINIMUM COVER.
3. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
4. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATE WITH THE DESIGNATED UTILITY COMPANIES.
5. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.
6. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM CONSULTING ENGINEER(S) AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF (72) HOURS PRIOR TO CONSTRUCTION. CONSULTANT AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
7. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.

LEGEND

- PROPERTY LINE
- EASEMENT BOUNDARY LINE
- UE — EXISTING ELECTRICAL LINE
- FO — EXISTING FIBER OPTIC LINE
- CATV — EXISTING CABLE LINE
- SD — EXISTING STORM SEWER LINE
- PROPOSED STORM SEWER LINE
- UE — PROPOSED ELECTRICAL LINE
- SS — PROPOSED SANITARY SEWER LINE
- UT — PROPOSED TELEPHONE LINE
- SD — PROPOSED STORM SEWER LINE
- W — PROPOSED WATER LINE
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER BEND
- PROPOSED SIGN
- PROPOSED SITE LIGHTING
- PROPOSED GREASE INTERCEPTOR
- TR — PROPOSED TRANSFORMER
- PROPOSED STORM SEWER INLET

GENERAL UTILITY NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
2. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER, DOUGLAS COUNTY AND OTHER NEIGHBORING CITIES AND TOWNS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
3. ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER THE CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS CONTACT THE PWSD IMMEDIATELY.
4. PWSD ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
6. ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000–POUND COMPRESSION STRENGTH.
7. THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF "AS–BUILT" DRAWINGS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL BY DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE PRINTS SHALL BE TRANSMITTED TO THE PWSD OFFICE.
8. NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
9. TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
10. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
11. SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
12. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
    a. "X" FOR SANITARY SERVICE SEWERS
    b. "V" FOR WATER SERVICES
13. NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
14. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.
15. ANY TRAFFIC CONTROL WITHIN PARKER ROAD RIGHT–OF–WAY WILL REQUIRE A CDOT RIGHT–OF–WAY PERMIT.

GC TO VERIFY LOCATION, CONNECTION POINT AND DEPTH OF EXISTING UTILITIES PRIOR TO INSTALLING PROPOSED UTILITY.

ALL UTILITY FEES TO BE PAID BY OWNER AND ARE NOT REQUIRED TO BE INCLUDED IN BID.

REFER TO GALLOWAY SHEET FE–1 FOR SIZING, ROUTING AND INSTALLATION REQUIREMENTS OF SITE LIGHTING CONDUIT AND WIRING AND PYLON SIGN CONDUIT AND WIRING.

SEE SHEET C–3.1 FOR BUILDING ROOF DRAINAGE AND CANOPY DRAINAGE.

UTILITY ROUTING NOTE:
1. REFER TO PLUMBING PLAN (P1) FOR EXACT LOCATIONS OF UTILITY ENTRY POINTS TO BUILDING, ROUTING OF SEWER FLOWS, ETC.

SHEET NO. C-6

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/01/2021

DATE	PRN	JES	KML
08/05/2021	---	PM	DES
OTB			DRW

UTILITY PLAN
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INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR SERVICE FAILS, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A RE-INSPECTION FEE CHARGED.
4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
7. LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
8. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION. UNLESS COORDINATED WITH DISTRICT INSPECTOR.

INSTALLATION NOTES:

WATER

1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
2. APPROVED BEDDING TO BE SQUEEGEE.
3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STUB-IN AND BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSD PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
4. A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 45-90° ANGLE. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18" ABOVE SEWER SERVICE.
5. WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD, CRAWL SPACE REQUIRES CONTINOUS COPPER WITH A 1' BURY.
6. CURB STOP MUST BE PLUMB AND CENTERED OVER THE NUT. IT SHOULD BE STRAPPED TO THE METER PIT (RESIDENTIAL INSTALLATIONS) OR CENTERED OVER THE EASEMENT LINE (COMMERCIAL INSTALLATIONS). THE ASSEMBLY MUST BE AT OR SLIGHTLY ABOVE FINISHED GRADE.
7. MOVED CURB BOXES MUST BE INSPECTED BY PWSD PRIOR TO BURIAL.
8. WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
9. NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
10. CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
11. ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
12. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
    "X" FOR SANITARY SEWER SERVICE
    "Y" FOR WATER SERVICES
13. NO SPLICES OR FLARED COUPLINGS ALLOWED ON SERVICES LARGER THAN 3/4". SILVER SOLDIERED JOINTS MUST BE USED IN MOVING STOPBOXES ON SERVICES LARGER THAN 3/4". SILVER SOLDIERED JOINTS MUST BE INSPECTED BY PWSD PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.

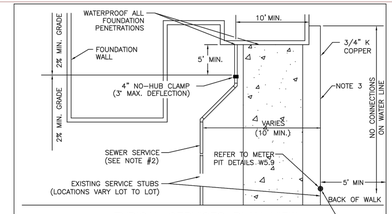
PARKER WATER & SANITATION DISTRICT

DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES

SCALE: NONE | DATE: 2/96

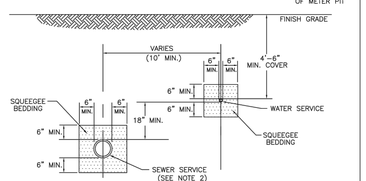
APPROVED: PVR, DIRECTOR OF ENGINEERING — 1/04, 1/16, 10/16

2016 REVISION — SHEET W1.1



TYPICAL SERVICES PLAN VIEW

NTS



TYPICAL SERVICES SECTION

NTS

NOTE

1. SEE SHEET W1.1 FOR DISTRICT POLICIES AND INSTALLATION NOTES.
2. REFER TO SEWER SERVICES DETAIL SHEET S1.2.
3. 4" PVC SLEEVES REQUIRED FOR SERVICE LINES UNDER CONCRETE SURFACE.

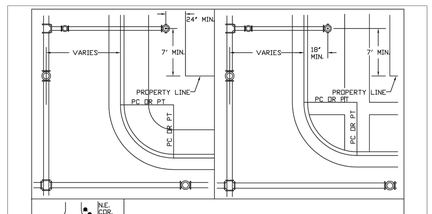
PARKER WATER & SANITATION DISTRICT

TYPICAL WATER SERVICES

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 4/97, 10/16, 06/05, 12/07, 1/16

2016 REVISION — SHEET W1.2



NOTES:

1. ALTERNATE TO THE ABOVE: FASTEN M.J. VALVE DIRECTLY TO A M.J. ANCHOR TEE VALVE CALLED SWIVEL TEE.
2. NO HORIZONTAL OR VERTICAL BENDS ARE ALLOWED IN FIRE HYDRANT BRANCH.
4. NO PORTION OF FIRE HYDRANT MAY BE WITHIN THE ROADWAY.
5. FIRE HYDRANT EXTENSIONS MAY NOT BE USED IN THE ROADWAY AREA.

PARKER WATER & SANITATION DISTRICT

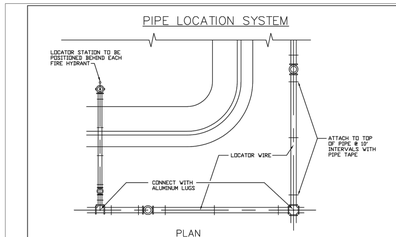
FIRE HYDRANTS LOCATION & INSTALLATION

SCALE: NONE | DATE: 2/96

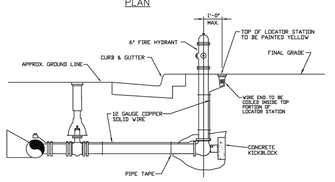
APPROVED: PVR, DIRECTOR OF ENGINEERING — 4/20, 10/16, 01/02, 12/07, 1/16

2016 REVISION — SHEET W2.5

PIPE LOCATION SYSTEM



PLAN



SECTION VIEW @ FIRE HYDRANT

NOTES:

1. FOR USE ON ALL DUCTILE IRON AND PVC WATER MAINS.
2. LOCATOR STATION POSITION MAY BE MODIFIED AT THE DIRECTION OF THE DISTRICT ENGINEER.
3. A CONTINUITY TEST WILL BE REQUIRED PRIOR TO PRELIMINARY ACCEPTANCE.

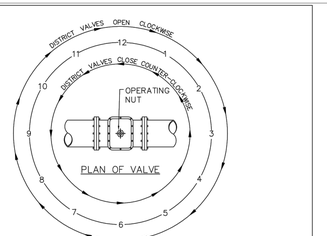
PARKER WATER & SANITATION DISTRICT

LOCATOR WIRE DETAILS

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 4/01, 01/02, 01/16, 10/16

2016 REVISION — SHEET W2.6



NOTE:
ONLY RIGHT HAND OPENING VALVES ALLOWED.

VALVE OPENING & CLOSING PROCEDURE

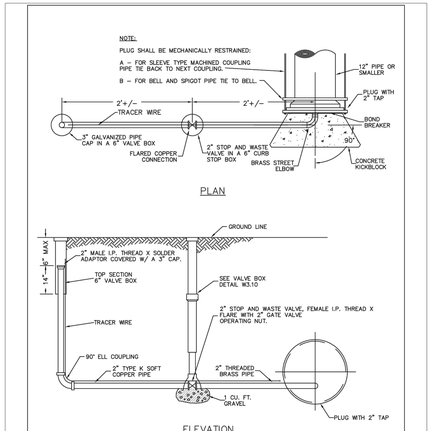
PARKER WATER & SANITATION DISTRICT

VALVE OPERATION

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 1/16, 10/16

2016 REVISION — SHEET W3.4



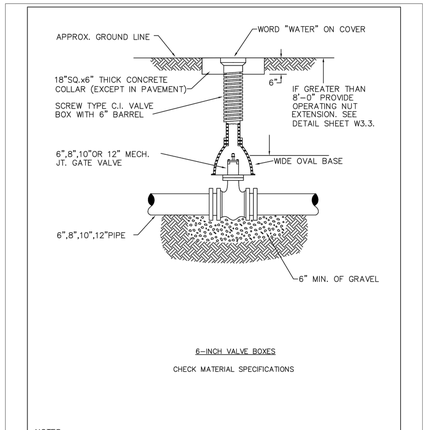
PARKER WATER & SANITATION DISTRICT

BLOW-OFF INSTALLATION FOR 12" & SMALLER PIPE

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 4/01, 1/16, 10/16

2016 REVISION — SHEET W3.7



6-INCH VALVE BOXES

CHECK MATERIAL SPECIFICATIONS

NOTES:

1. ALL C.I. SHALL BE WRAPPED WITH 8 MIL. MIN. THICKNESS POLYETHYLENE.
2. VALVE NUT SHALL BE CENTERED.
3. VALVE BOX SHALL BE PLUMB.
4. SEE MATERIAL SPECIFICATIONS FOR VALVE BOX WITH GREATER THAN BURIED DEPTH OF 4.5 FT.

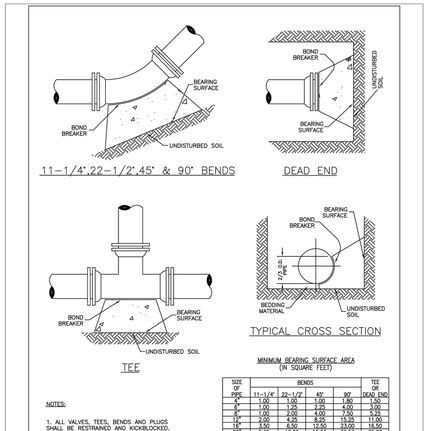
PARKER WATER & SANITATION DISTRICT

VALVE BOX DETAIL

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 5/98, 8/99, 12/07, 1/16

2016 REVISION — SHEET W3.10



MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

SIZE OF PIPE	BENDS 11-1/4°	22-1/2°	45°	90°	TEE OR DEAD END
4"	1.00	1.00	1.00	1.80	1.50
6"	1.00	1.25	2.25	4.00	3.00
8"	1.00	2.00	4.00	7.50	5.35
10"	2.00	3.00	6.00	13.25	11.00
12"	3.00	4.25	8.25	19.00	17.00
16"	5.00	10.00	12.50	30.00	25.00
20"	6.50	13.00	26.00	47.00	33.00
24"					

NOTES:

1. ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RESTRAINED AND KICKBLOCKED.
2. BEARING SURFACES SHOWN IN CHART ARE MINIMUM.
3. BASED ON 150 PSI PIPE PRESSURE PLUS WATER HAMMER:
   4", 6" AND 8" WATER HAMMER = 120 PSI.
   12" WATER HAMMER = 110 PSI
   16", 20" AND 24" WATER HAMMER = 70 PSI.
4. SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

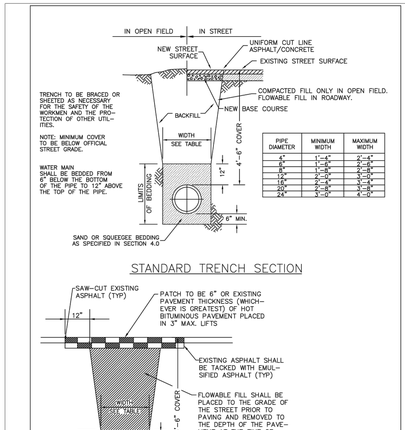
PARKER WATER & SANITATION DISTRICT

CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 4/01, 1/16, 10/16

2016 REVISION — SHEET W3.18



TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND THE PRO-TECTION OF OTHER UTIL-ITIES.

NOTE: MINIMUM COVER TO BE BELOW OFFICIAL STREET GRADE.

WATER MAIN SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO 12" ABOVE THE TOP OF THE PIPE.

PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	2'-4"
6"	1'-8"	2'-8"
8"	1'-8"	2'-8"
12"	2'-0"	3'-0"
16"	2'-0"	3'-0"
20"	2'-8"	3'-8"
24"	2'-8"	4'-0"

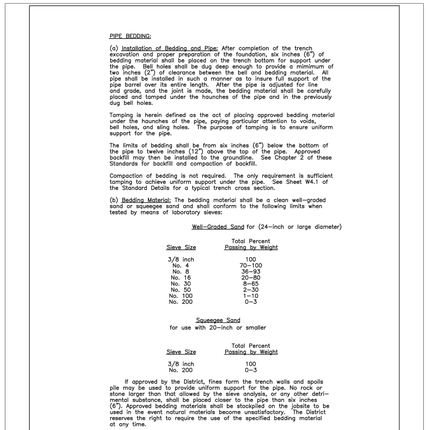
PARKER WATER & SANITATION DISTRICT

TYPICAL TRENCH SECTION PIPE PROTECTION

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 4/01, 01/02, 01/16, 10/16

2016 REVISION — SHEET W4.1



PIPE BEDDING:

(a) Installation of Bedding and Fill: After completion of the trench excavation and proper preparation of the foundation, six inches (6") of bedding material shall be placed on the trench bottom for support under the pipe. Bell holes shall be dug deep enough to provide a minimum of two inches (2") of clearance between the bell and bedding material. All pipe shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade, and the joint is made, the bedding material shall be carefully placed and tamped under the haunches of the pipe and in the previously dug bell holes.

Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, bell holes, and sling holes. The purpose of tamping is to ensure uniform support for the pipe.

The limits of bedding shall be from six inches (6") below the bottom of the pipe to twelve inches (12") above the top of the pipe. Approved backfill may then be installed to the groundline. See Chapter 2 of these Standards for backfill and compaction of backfill.

Compaction of bedding is not required. The only requirement is sufficient tamping to achieve uniform support under the pipe. See Sheet W4.1 of the Standard Details for a typical trench cross section.

(b) Bedding Material: The bedding material shall be a clean well-graded sand or squeegee sand and shall conform to the following limits when tested by means of laboratory sieves:

Well-Graded Sand for (24-inch or large diameter)

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	70-100
No. 8	50-90
No. 16	30-80
No. 30	8-65
No. 50	2-30
No. 100	1-10
No. 200	0-3

Squeegee Sand
for use with 20-inch or smaller

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 200	0-3

If approved by the District, fines form the trench walls and spoils pile may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the sieve analysis, or any other detri-mental substance, shall be placed closer to the pipe than six inches (6"). Approved bedding materials shall be stockpiled on the jobsite to be used in the event natural materials become unsatisfactory. The District reserves the right to require the use of the specified bedding material at any time.

PARKER WATER & SANITATION DISTRICT

PIPE BEDDING

SCALE: NONE | DATE: 2/96

APPROVED: PVR, DIRECTOR OF ENGINEERING — 5/98, 2/00, 1/16, 10/16

2016 REVISION — SHEET W4.2

SHEET NO. C-6.1

COLORADO LICENSED
MICHAEL E. MINA
58388
PROFESSIONAL ENGINEER
09/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

UTILITY DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

SEWER CROSSING UNDER
LESS THAN 18" BETWEEN PIPES

1. PIPE SHALL BE WRAPPED WITH FELT LAYER BEFORE ENCASING.

PARKER WATER & SANITATION DISTRICT

CROSSING STORM & SANITARY SEWERS

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	1/16 10/16

2016 REVISION — SHEET W4.7

★ MACHINE COMPACTED TRENCH BACKFILL

✱ LIMIT OF SLOPING OR BENCHING OF TRENCH WALLS

UNDISTURBED GROUND

NOTES:
1. MIN.COVER TO BE BELOW FINAL STREET GRADE CONSTRUCTION OF WATER MAIN MAY NOT START UNTIL FINAL GRADE WITHIN 1 FOOT.
2. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE PROTECTION OF OTHER UTILITIES AND TO MEET OSHA SAFETY REQUIREMENT.
3. TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE LAID THEREIN (BELL OR COUPLING O.D. IF APPLICABLE). REFER TO SHEET W4.1 FOR DIMENSIONS.

PARKER WATER & SANITATION DISTRICT

BEDDING DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	1/16 10/16

2016 REVISION — SHEET W4.8

NOTES:
1. METER TO BE LOCATED IN AN UNDERSTRUCTURE ACCESSIBLE PLACE. (NOT IN CRAWL SPACE)
2. SEE WATER SYSTEM SPECIFICATIONS, IN CHAPTER ONE, FOR GENERAL METER NOTES.
3. VERTICAL AND HORIZONTAL REDUCED PRESSURE BACKFLOW CONFIGURATION ALLOWABLE PER AWWA C511.
4. APPROVED REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY WHICH MUST BE CERTIFIED.
5. 1.0' MINIMUM CLEARANCE AROUND BACKFLOW ASSEMBLY
6. FLOOR DRAIN TO BE 2X THE DIAMETER OF PIPE
7. SUPPORTED FIRMLY TO THE WALL.
8. FOR IRRIGATION APPLICATIONS, IRRIGATION MUST BE TAPPED AFTER THE METER AND MUST USE AN APPROVED RAIN SENSOR AND SMART ET CONTROLLER PER MATERIAL SPECIFICATIONS.
9. NO BYPASSES ALLOWED.
10. ALL PIPING MUST BE COPPER AND SAME SIZE AS TAP.
11. ALL FITTINGS MUST BE NO-LEAD BRASS PER MATERIAL SPECIFICATIONS.

PARKER WATER & SANITATION DISTRICT

INSIDE COMMERCIAL METER INSTALLATION FOR 6" & SMALLER PIPE

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	6/99 1/16 2/00 10/16 4/01 01/02 06/05

2016 REVISION — SHEET W5.8

METER UNIT NOTES:
1. AN APPROVED BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON ALL SYSTEMS.
2. ALL IRRIGATION SERVICES MUST BE CONNECTED DOWN STREAM OF METER.
3. NO MORE THAN 2" SEPERATION BETWEEN FITTINGS FROM THE STOP & WASTE SHUT OFF VALVE TO THE PRV NO MORE THAN 2" SEPERATION BETWEEN PRV AND METER YOKE
4. IF SERVICE FAILS INSPECTION A RE-INSPECTION FEE WILL BE ASSIGNED.
5. ALL METERS PROVIDED BY PWSD.

PARKER WATER & SANITATION DISTRICT

SERVICE LINE, STOP BOX & INSIDE METER SETTING (COMMERICAL ONLY)

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	* ADDITION 01/04 10/16 06/05 1/16

2016 REVISION — SHEET W5.9

METER SIZE	A
3/4"	7 3/4"
1"	11 1/4"

PARKER WATER & SANITATION DISTRICT

RESIDENTIAL ALL OUTSIDE SETTINGS FOR 3/4" & 1" METERS

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	01/04 01/16 06/05 10/16 01/08 01/13

2018 REVISION — SHEET W5.10

NOTES

METER	YOKE DISTANCE
1.5"	13.25" WITH ADJUSTABLE FLANGE FOR GASKET
2"	17.25" WITH ADJUSTABLE FLANGE FOR GASKET

1 – PIPE JOINT SHALL BE THREADED OR SOLDERED WITH SILVER SOLDER.
2 – INSTALLATION MUST ALLOW ACCESS FOR MAINTENANCE AND BE PROTECTED FROM FREEZING.
3 – SEE WATER SYSTEM SPECIFICATIONS FOR GENERAL METER NOTES.
4 – COMPANION FLANGES SHALL BE BRASS.
5 – METER SUPPORT SHALL BE EITHER CONCRETE OR ADJ. STEEL PIPE (SEE SHEET W3.10)
6 – 1.0' MINIMUM CLEARANCE AROUND BACKFLOW DEVICE
7 – FLOOR DRAIN TO BE 2X PIPE SIZE
8 – FOR IRRIGATION USES, ADD RAIN SENSOR AND SMART E.T. CONTROLLER

PARKER WATER & SANITATION DISTRICT

INSIDE SETTING FOR 1 1/2 & 2" METER

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	8/99 01/02 01/16 2/00 06/05 10/16 4/01 07/06

2016 REVISION — SHEET W5.14

REDUCED PRESSURE BACKFLOW ON IRRIGATION SYSTEM

NOTE:
1. ALL IRRIGATION SYSTEMS MUST BE CONNECTED DOWN STREAM OF METER.
2. PROVIDE ENCLOSURE.

PARKER WATER & SANITATION DISTRICT

REDUCED PRESSURE BACKFLOW

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	2004 06/05 1/16 10/16

2016 REVISION — SHEET W6.1

INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTE 1 ABOVE AND A RE-INSPECTION FEE CHARGED.
3. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
4. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
5. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
6. LOTS WITHOUT BUILDING ADDRESSES OR LOT AND BLOCK NUMBERS BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
7. CONTRACTOR MUST BE PRESSENT AT TIME OF INSPECTION UNLESS COORDINATED WITH DISTRICT INSPECTOR.

INSTALLATION NOTES:

SEWER

1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHD 40 PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3°.
3. MINIMUM GRADE SHALL BE 2%.
4. INSTALLATION SHALL INCLUDE NO MORE THAN 3 BENDS. 90° BENDS ARE NOT ALLOWED. SOLVENT WELDED PIPE WILL NOT BE ALLOWED.
5. CLEAN-OUTS SHALL BE INSTALLED AT 100' INTERVALS AND EVERY CHANGE IN DIRECTION. CLEAN-OUTS ARE NOT REQUIRED FOR SERVICES LESS THAN 100' UNLESS THERE ARE CHANGES IN DIRECTION. PROVIDE DUAL CLEAN-OUT WITHIN 5 FEET OF FOUNDATION.
6. STRESSING OF THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.
7. SEWER SERVICE LINE SHALL NOT BE LOCATED UNDER CONCRETE SURFACE.
8. ALL SERVICES WILL BE PERMANANTELY MARKED ON CURB FACE AS FOLLOWS:
   "X" FOR SANITARY SEWER SERVICE
   "V" FOR WATER SERVICES

PARKER WATER & SANITATION DISTRICT

DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	01/02 10/16 1/08 1/16

2016 REVISION — SHEET S1.1

NOTE
1. SEE SHEET S1.1 FOR DISTRICT POLICIES AND INSTALLATION NOTES.
2. TYPICAL WATER SERVICES SHOWN ON SHEET W1.2 IN WATER DETAILS.

PARKER WATER & SANITATION DISTRICT

TYPICAL SEWER SERVICES

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	2/00 01/02 01/16 10/16

2016 REVISION — SHEET S1.2

NOTES:
1. RING/COVER AND CHIMNEY SHALL BE CENTERED ON CONCRETE RINGS W/RAMNECK.
2. FLAT TOP SECTIONS MAY BE USED IN LIEU OF ECCENTRIC CONES WHEN SPECIFICALLY APPROVED BY DISTRICT ENGINEER.
3. FOR MANHOLE DEPTHS LESS THAN 4' USE 4' DIA. PRECAST VERTICAL MANHOLE BARRELS WITH PRECAST FLAT TOP SECTIONS ARE REQUIRED.
4. ALL PRECAST MANHOLE SECTIONS, FLAT TOPS AND CONES SHALL WHERE SHALL CONFORM TO ASTM C-478, STANDARD SPECIFICATIONS FOR PRECAST REINFORCED MANHOLE SECTIONS.
5. FLAT TOPS SHALL BE CAPABLE OF WITHSTANDING H-20 LIVE LOADS.
6. ALL INTERIOR SEAMS AND PIN HOLES SHALL BE GROUTED WITH TYPE II CEMENT MIX.
7. SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING OR SHAPING CONCRETE BASE.
8. FLAT TOP SECTIONS WITH CONCENTRIC OPENINGS ARE NOT ALLOWED.
9. MANHOLE STEPS SHALL NOT BE INSTALLED OVER THE FLOW CHANNEL. THEY SHALL BE PLACED 12" APART IN A VERTICAL ALIGNMENT WITH THE BOTTOM STEP 8" ABOVE THE BENCH MINIMUM.
10. FLEXIBLE PLASTIC SEALANT, (RAMNECK ETC.) AS REQUIRED IN SPECIFICATIONS SHALL BE USED BETWEEN BASE, BARREL SECTIONS, CONE SECTIONS, FLAT TOPS, ETC.
11. DESIGN ENGINEER OR DISTRICT ENGINEER SHALL DETERMINE MANHOLE SIZE FOR SPECIAL DESIGN CONSIDERATIONS.
12. SLIP-RING FRAME RISERS MAY NOT BE USED.

PIPE I.D.	MANHOLE I.D.
18" & SMALLER	4'-0"
21" TO 48"	5'-0"
54"	6'-0"
60" & LARGER	SPECIAL DESIGN

PARKER WATER & SANITATION DISTRICT

PARKER MANHOLE ECCENTRIC CONE

SCALE: NONE	DATE: 2/96
APPROVED: PVR, DIRECTOR OF ENGINEERING	4/01 10/16 01/02 1/08 1/16

2016 REVISION — SHEET S3.1

SHEET NO. C-6.2

COLORADO LICENSED MICHAEL E. MAY 58388 PROFESSIONAL ENGINEER 08/05/2021

OTB	08/05/2021	---	PRN	JES	PM	KML	DES	KML	DRW
	DATE								

UTILITY DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

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6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
200 PEACH STREET
EL DORADO, AR 71730

SANITARY SEWER MH
PLAN (TYPE A)

SECTION A–A

SECTION B–B

NOTES:

1 Base slab shall be cast monolithic with the bottom riser section.
2 All pipe openings shall be formed with an approved flexible rubber wedge – type gasket conforming to A.S.T.M. C-443 to provide a flexible watertight seal between wedge – type joint with zero leakage around the installed pipe(s).
3 Manhole steps installed in bottom riser section shall conform to PWSD Standards and Specifications.
4 Shiplap joint on manhole barrel riser shall conform to PWSD Standards and Specifications. Manhole barrel riser with shiplap adapter section may be provided at the first joint in the bottom riser section which will adapt the precast base section to PWSD standard manhole riser sections.
5 Grouted flow channels and inverts shall conform to PWSD Standards and Specifications. Manhole barrel min. diameter shall be 48" for precast barrel sections to conform to A.S.T.M. C-478. All dead-end manholes shall be stubbed thru at 0.40% minimum slope.
9 Stub outs shall extend 2'–0" min past manhole O.D. and be satisfactorily plugged.
10 Slope of bench = 1/2"/Ft.–Max 1/4"/Ft.–Min.
11 △= Invert drop thru Manhole (if > 18", outside drop MH req'd)

ATTENTION:
NOT TO BE USED WITHOUT EXPRESS PERMISSION OF DISTRICT ENGINEER.

PARKER WATER & SANITATION DISTRICT

PRECAST MANHOLE BASE DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/02 01/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S3.4

SANITARY SEWER MH
PLAN (TYPE A)

SECTION A–A

SECTION B–B

NOTES:

1. Manhole barrel min. thickness to be 5".
2. Shaping for smooth manhole inverts may be done by forming or shaping with cement mortar (San. Sewer).
3. The manhole steps shall conform to District Standards and Specifications.
4. Precast sections to conform to A.S.T.M C-478.
5. All dead–end manholes, that call out a stub out, shall be thru at 0.40% minimum slope.
6. Stub outs shall extend 2'–0" minimum past manhole O.D. and be satisfactorily plugged.
7. Reinforcing in base required for manhole.
8. Slope of bench = 1/2"/Ft.–Max. 1/4"/Ft.–Min.
9. △ = invert drop thru MH (if △ > 18", outside drop MH required), Min. 0.1' for all straight through MH and 0.2' for all angled MH.

PARKER WATER & SANITATION DISTRICT

CAST–IN–PLACE MANHOLE BASE DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/02 01/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S3.5

NOTES:

1. Manhole shall be coated using bituminous mastic (ramneck) or plastic sealing compound.

PARKER WATER & SANITATION DISTRICT

TYPICAL BASE CHANNELIZATION DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S3.7

NOTE:

1. Casting Specifications: ASTM A–48 With A Minimum Tensile Strength Of 25 KSI (Class 25)
2. All Casting To Be Dipped In Asphalt Base Paint (Or Approved Equal).
3. No other manhole lids will be accepted without prior approval from the District Engineer.

PARKER WATER & SANITATION DISTRICT

24" DIAMETER RING AND COVER

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S3.9

NOTES:

1.1 ALUMINUM ALLOY SPECIFICATIONS
a. FED. SPEC. QQ–A–200/8 (ALUMINUM–MAGNESIUM–SILICATE ALLOY)
b. MINIMUM TENSILE STRENGTH= 38,000 p.s.i.
c. MINIMUM YIELD STRENGTH= 35,000 p.s.i.
d. MINIMUM ELONGATION=10% IN 2
1.2 MINIMUM LOAD CAPACITY (APPLIED AT CENTER OF STEP
a. 1000 lb. WITH 6" PROJECTION FROM WALL
b. 1500 lb. WITH 4" PROJECTION FROM WALL
1.3 WEIGHT PER STEP=2.23 POUNDS
1.4 STEPS TO BE CAST, UNALTERED, IN MAN–HOLE WALL IN STRAIGHT LINE, VERTICALLY, AT THE SAME TIME THE BARREL OR CONE SECTIONS ARE CAST.
1.5 VERTICAL SPACING BETWEEN STEPS SHALL BE CONSISTENT IN EACH INDIVIDUAL MANHOLE.
1.6 TOE POCKETS ARE REQUIRED IN STORM SEWER MANHOLES IF TOP OF BENCH IS MORE THAN 18" ABOVE INVERT. TOE POCKETS ARE NOT REQUIRED IN SANITARY SEWER MANHOLED UNLESS OTHERWISE SPECIFIED.

STANDARD EXTRUDED ALUMINUM MANHOLE STEP

PARKER WATER & SANITATION DISTRICT

STANDARD EXTRUDED ALUMINUM MANHOLE STEP

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S3.10

NOTE
If solid sheeting or shoring is used, it shall be cut off at top of pipe and left in place.

TYPICAL TRENCH DETAIL

T_b = Thickness of Asphaltic Concrete Base Course (A C B C)

T_w = Thickness of Asphaltic Concrete Wearing Surface (A C W S)

T_o = Total Asphalt Thickness (T_b + T_w)

B_c = Outside Pipe or Conduit Span Dimension

B_d = Specified Bedding Trench Width and Max Bedding Trench Width at a point 12" above Top of Pipe (See Note 2)

B_b = Max. Pay Width of Asphaltic Concrete Base Course (or Asphaltic Concrete Cold Mix) (See Note 3)

B_s = Max. Pay Width of Asphaltic Concrete Wearing Surface or Sod Replacement. (See Note 3)

H = Depth of Surface to Top of Pipe

H–I= Depth from Surface to 1 ft. above Top of Pipe

TABLE II
ASPHALT AMD BASE COURSE REPLACEMENT SCHEDULE

STREET WIDTH	ASPHALTIC BASE COURSE (T_b)	ASPHALTIC WEARING SURFACE (T_w)	TOTAL THICKNESS (T_o)
UP TO 36'	4"	2"	6"
36' TO 44'	4"	3"	7"
44' TO 48'	5"	3"	8"
WIDER THAN 48'	6"	3"	9"

NOTES

1. *Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.*
2. *Trench shall be braced and shored as necessary to afford safe working conditions or to protect adjacent utilities, structures, etc. Unless otherwise specified on the plans, no pavement will be made for removal, replacement or disturbance of curb, gutter, utilities, sidewalk, structures, etc. outside the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.*
3. *If dimension "B_d" is ≤ 2', then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt pay widths, B_b & B_s shall then be based upon this actual width.*

PARKER WATER & SANITATION DISTRICT

SEWER TRENCHING AND BEDDING DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	5/98 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S4.1

PARKER WATER & SANITATION DISTRICT

IN–LINE CLEANOUT SECTIONS

SCALE: NONE	DATE: 2/96
APPROVED: PVR	2/00 10/08 1/09 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S4.12

NOTE;
SEAL INSIDE WITH MORTAR (TYP. ALL INTERIOR SEAMS)

NOTES:

1. RING/COVER AND CHIMNEY SHALL BE CENTERED ON CONCRETE RINGS W/RAMNECK.
2. FLAT TOP SECTIONS MAY BE USED IN LIEU OF ECCENTRIC MANHOLES WHEN SPECIFICALLY APPROVED BY DISTRICT ENGINEER.
3. FOR MANHOLE DEPTHS LESS THAN 4' FROM RIM TO TOP OF BENCH, VERTICAL MANHOLE BARRELS WITH PRECAST FLAT TOP SECTIONS ARE REQUIRED.
4. ALL PRECAST MANHOLE SECTIONS, FLAT TOPS AND CONCENTRIC CONES SHALL CONFORM TO ASTM C–478, STANDARD SPECIFICATIONS FOR PRECAST RE–INFORCED MANHOLE SECTIONS.
5. FLAT TOPS SHALL BE CAPABLE OF WITH–STANDING H–20 LIVE LOADS.
6. ALL INTERIOR SEAMS AND PIN HOLES SHALL BE GROUTED WITH TYPE II CEMENT MIX.
7. SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING OR SHAPING CONCRETE BASE.
8. FLAT TOP SECTIONS WITH CONCENTRIC CONES MAY BE USED IN LIEU
9. MANHOLE STEPS SHALL NOT BE IN–STALLED OVER THE FLOW CHANNEL; THEY SHALL BE PLACED 12" MINIMUM OR 16" MAXIMUM IN STRAIGHT VERTICAL LINE WITH THE FIRST STEP 18" MAXIMUM 8" ABOVE THE BENCH MINIMUM.
10. FLEXIBLE ASPHALTIC SEALANT, (RAMNECK ETC.) IS REQUIRED IN SHIPLAP JOINTS AND IN JOINTS BETWEEN BASE, BARREL SECTIONS, CONE SECTIONS, FLAT TOPS, ETC.
11. DESIGN ENGINEER OR DISTRICT ENGINEER MAY INCREASE MANHOLE SIZE FOR SPECIAL DESIGN CONSIDER–ATIONS.
12. SLIP–RING FRAME RISERS MAY NOT BE USED.
13. STEPS TO DESCEND TO BENCH NOT CHANNEL.

PARKER WATER & SANITATION DISTRICT

SAMPLING MANHOLE

SCALE: NONE	DATE: 2/99
APPROVED: PVR	2/00 10/16 1/09 10/08 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET S5.3

SHEET NO. C-6.3

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

UTILITY DETAILS
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MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

GENERAL NOTES

1. LOAD RATING - HEAVY DUTY.
2. COATING - UNDIPPED.
3. ESTIMATED WEIGHT - 112 LBS.
4. MATERIAL SPECIFICATION - GRAY IRON ASTM A48 CL35B.
5. FOR USE ON ALL PRIVATE AND PUBLIC STORM SEWER.

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PARKER COLORADO	MANHOLE COVER STANDARD DETAIL	DATE NOVEMBER 2020	DETAIL 33 1 OF 1

ACO DRAIN

KlassikDrain - K200 Galvanized steel edge rail channel system

Type 902G In-line catch basin

Outlet flow rates

Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
A	Bottom outlet - K2-00	4" round	7.87"	153	0.33
A	Bottom outlet - K2-040	4" round	15.75"	216	0.48
B	Bottom outlet -K2-00	6" round	7.87"	344	0.77
B	Bottom outlet - K2-040	6" round	15.75"	486	1.08
C	End outlet - K2-00	4" round	7.87"	132	0.29
C	End outlet - K2-40	4" round	15.75"	202	0.45
D	End outlet - K2-10	6" round	9.84"	320	0.71
D	End outlet - K2-40	6" round	15.75"	437	0.97
E	Type K2-902G	4" round	25.33"	263	0.59
F	Type K2-902G	4" round	31.83"	297	0.66
G	Type K2-902G	4" round	23.76"	254	0.57
H	Type K2-902G	4" round	31.83"	658	1.47
I	Type K2-902G	4" round	23.91"	255	0.57
J	Type K2-902G	4" round	30.40"	290	0.65
K	Type K2-902G	6" round	24.68"	570	1.27
L	Type K2-902G	4" round	24.13"	256	0.57
M	Type K2-902G	4" round	31.82"	658	1.47
N	Type K2-902G	4" round	31.26"	294	0.66
O	Type K2-902G	6" round	31.26"	651	1.45
P	Type K2-902G	8" round	31.82"	1149	2.56
Q	Type K2-902G	6" round	30.32"	640	1.43
R	Type K2-902G	4" round	23.19"	251	0.56
S	Type K2-902G	4" round	29.90"	288	0.64

Note: These are the pipe flow rates at the specified outlet. **NOT** channel flow rates. Catch basin flow rates are without trash bucket - using trash bucket reduces flow.

End Cap

ACO Specification Information

ACO DRAIN

Type 678Q Longitudinal ductile iron grate (ADA)

Product Features

- Certified to EN 1433 Load Class C - 56,000 lbs - 967 psi
- Uses 'QuickLok' bottless locking system
- Suitable for use with K200, KS200, H200K-13, and H200KS-13 channels
- Manufactured from ductile iron to ASTM A 536-84 - Grade 65-45-12
- E- coated for improved resistance against rust
- Complies with ADA - American Disabilities Act of 1990 Section 4.5.4
- Complies with ASME: A112.6.3 - 2001: Section 7.12 Heel Resistant Strainers and Grates
- Bicycle Tire Penetration Resistant to AS 3996 - 2006

Specifications

General
The surface drainage system shall be ACO Dran K200, KS200, H200K-13, and H200KS-13, channels" complete with ACO Type 678Q longitudinal ductile iron grate with 'QuickLok' locking as manufactured by ACO, Inc. or similar approved.

Materials
The covers shall be manufactured from ductile iron and have ***minimum*** properties as follows:

- ***Independently certified to meet Load Class C to EN 1433 - 56,000 lbs - 967 psi***
- ***Ductile iron to ASTM A 536-84 - Grade 65-45-12***
- ***Intake area of 51.62 sq. in. (390.97 cm²) per half meter of grate***

The overall width of 9.41" (239mm) and overall length of 19.69" (500mm). Slots measure at a maximum of 1.41" (35.9mm) by 0.31" (8mm).

Installation
The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

* delete as appropriate

ACO Specification Information

ACO DRAIN

Type 678Q Longitudinal ductile iron grate (ADA)

Plan view

Side elevation

Description	Part No.	Length inches (mm)	Width inches (mm)	Weight lbs.
QuickLok grate Type 678Q Ductile iron longitudinal grate	**95038**	19.69 (500)	9.41 (239)	22.0
QuickLok locking bar	**10457**	-	-	0.5
QuickLok grate removal tool	**01318**	-	-	0.3

'QuickLok' locking mechanism

ACO 'QuickLok' is a patented bottless locking system, grates are removed and replaced with the minimum time and effort for ease of maintenance. The unique design provides a positive 'snap down' fit into the locking bar. A stud is fixed to the grate which 'locks' into the spring clip in the locking bar.

The 'QuickLok' stud is made from stainless steel and high density nylon, the locking bar and clip are stainless steel, for use in both general purpose and corrosive environments.

ACO, Inc.
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9470 Pinecone Drive
Mentor, OH 44060
Tel: (440) 639-7230
Toll free: (800) 543-4764
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West Sales Office
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Fax: (520) 421-9899

Southeast Sales Office
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SPEC INFO ACO

SHEET NO. C-6.4

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

UTILITY DETAILS
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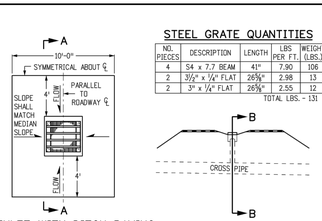


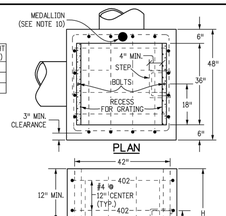
INLET WITH DITCH PAVING

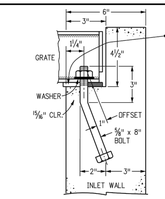
SECTION VIEW

STEEL GRATE QUANTITIES

NO. PIECES	DESCRIPTION	LENGTH	LBS PER FT.	WEIGHT (LBS.)
4	S4 x 7.7 BEAM	41"	7.90	106
2	3½" x ¼" FLAT	26⅝"	2.98	13
2	3" x ¼" FLAT	26⅝"	2.55	12

TOTAL LBS. - 131





QUANTITIES FOR ONE INLET

H	CONCRETE (CU. YDS.)	STEEL (LBS.)	NO. STEPS REQ'D.
2'-6"	1.0	76	0
3'-0"	1.1	81	0
3'-6"	1.2	97	0
4'-0"	1.3	102	1
4'-6"	1.5	117	2
5'-0"	1.6	123	2
5'-6"	1.7	138	2
6'-0"	1.9	143	3
6'-6"	2.0	159	3
7'-0"	2.1	164	3
7'-6"	2.2	180	4
8'-0"	2.4	185	4
8'-6"	2.5	200	4
9'-0"	2.6	206	5
9'-6"	2.8	221	5
10'-0"	2.9	236	6
11'-6"	3.3	252	6

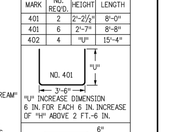
▼ PIPE INSIDE DIAMETER SHALL BE 30 IN. OR LESS. CONCRETE AND STEEL QUANTITIES ARE FOR ONE ENTIRE INLET BEFORE DEDUCTION FOR VOLUME OCCUPIED BY PIPE. WEIGHT OF STEEL INCLUDES A RING FOR THE MAXIMUM PIPE DIAMETER.

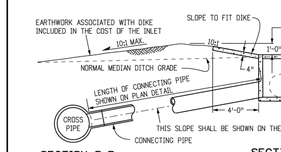
GENERAL NOTES

1. INLET TYPE C IS NOT HS-20 RATED AND SHALL NOT BE PLACED IN PAVED ROADWAYS. THIS INLET SHALL BE USED ONLY OUTSIDE PAVED ROADWAYS.
2. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
3. REINFORCING BARS SHALL BE GRADE 60, EPOXY COATED, AND DEFORMED #4, AND SHALL HAVE A MIN. 2 INCH CLEARANCE. CUT OR BEND AROUND PIPES AS REQUIRED.
4. CONCRETE SLOPE AND DITCH PAVING SHALL BE IN ACCORDANCE WITH SECTION 507. REINFORCEMENT FOR CONCRETE SLOPE PAVING SHALL BE 6 X 6 - W1.4 X W1.4 OR 6 X 6 - W2.1 X W2.1.
5. STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
6. THE STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS CLOSE MESH INLET GRATES ARE SPECIFIED ON THE PLANS.
7. CLOSE MESH GRATES ARE RECOMMENDED WHERE FOOT TRAFFIC OR BICYCLE ROUTES ARE IN CLOSE PROXIMITY TO GRATE. THIS GRATE IS NOT ADA COMPLIANT OR BICYCLE FRIENDLY AND SHALL NOT BE PLACED DIRECTLY IN SIDEWALKS, CROSSWALKS OR BIKE PATHS.
8. STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FEET - 6 INCHES AND SHALL CONFORM TO AASHTO M 199.
9. SEE STANDARD PLAN M-604-11, FOR REINFORCEMENT AROUND THE PIPE OPENING.
10. ALL INLETS SHALL HAVE A 4 INCH DIA. METAL MEDALLION WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FIRMLY ATTACHED TO THE TOP OF THE INLET WITH A PERMANENT FASTENER.

BAR LIST FOR H = 2 FT.-6 IN. AND BENDING DIAGRAM

MARK	NO. REQ'D.	HEIGHT	LENGTH
401	2	2'-2½"	8'-0"
401	6	2'-7"	8'-8"
402	4	"H"	15'-4"



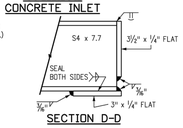


SECTION B-B

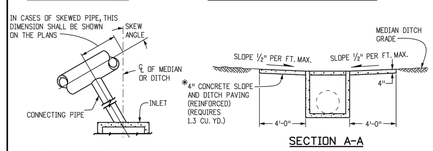
INLET CONNECTED TO A CROSS PIPE

SECTION A-A

INLET ON GRADE (FLOW FROM ONE DIRECTION)



SECTION D-D

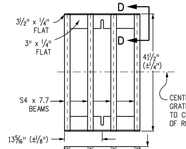


INLET CONNECTED TO A SKEWED CROSS PIPE

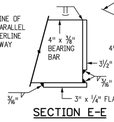
SECTION A-A

*CONCRETE SLOPE AND DITCH PAVING WILL BE REQUIRED WHEN SHOWN ON THE PLANS.

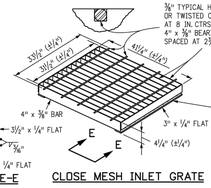
INLET AT BOTTOM OF VERTICAL CURVE (FLOW FROM TWO DIRECTIONS)



STANDARD INLET GRATE



SECTION E-E



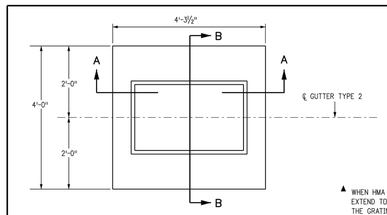
CLOSE MESH INLET GRATE

Computer File Information		Sheet Revisions	
Creation Date: 07/31/19		Date:	Comments
Designer Initials: JBK	(R=X)		
Last Modification Date: 07/31/19	(R=X)		
Detailer Initials: LTA	(R=X)		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R=X)		

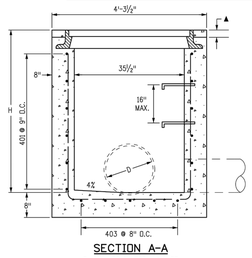
Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

INLET, TYPE C

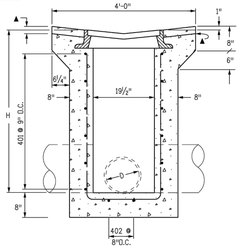
STANDARD PLAN NO. M-604-10
Standard Sheet No. 1 of 1
Issued by the Project Development Branch: July 31, 2019
Project Sheet Number:



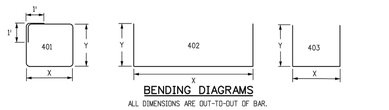
PLAN VIEW
TYPE 13 INLET FOR GUTTER TYPE 2



SECTION A-A
D MAX = 30 IN. FOR H > 4 FT.

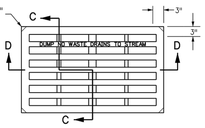


SECTION B-B
D MAX = 18 IN. FOR ALL H

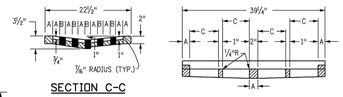


BENDING DIAGRAMS
ALL DIMENSIONS ARE OUT-TO-OUT OF BAR.

CORNERS RELIEVED ¾" TO PREVENT ROCKING (TYP.)



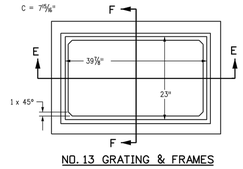
NO. 13 GRATE



SECTION C-C

SECTION D-D

A = 1¾"
B = 1⅛"
C = 7⅞"



NO. 13 GRATING & FRAMES

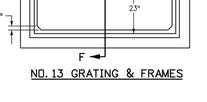
GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CAST-IN-PLACE CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES.
3. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾ OF A INCH.
4. REINFORCING BARS SHALL BE DEFORMED #4 AND SHALL HAVE A 2 INCH MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE GRADE 60 AND EPOXY COATED.
5. STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FEET-6 INCHES AND SHALL CONFORM TO AASHTO M 199.
6. ALL GRATES AND FRAMES SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06. GRATES AND FRAMES SHALL BE DESIGNED TO WITHSTAND HS 20 LOADING.
7. STATION POINT IS AT THE CENTER OF THE INLET.
8. GRATE SHALL HAVE "DUMP NO WASTE DRAINS TO STREAM" MESSAGE CAST ON SURFACE.

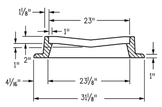
H	CONCRETE	REINFORCING STEEL	NO. OF 401 BARS REQ'D.	MAXIMUM PIPE I.D.	
				SEC. A-A	SEC. B-B
	CU. YDS.	@ LB.		IN.	IN.
3'-0"	1.3	72	4	18	18
3'-6"	1.5	76	4	24	18
4'-0"	1.6	90	5	30	18
4'-6"	1.8	104	6	30	18
5'-0"	1.9	109	6	30	18
5'-6"	2.1	122	7	30	18
6'-0"	2.2	136	8	30	18
6'-6"	2.4	141	8	30	18
7'-0"	2.5	154	9	30	18
7'-6"	2.7	168	10	30	18
8'-0"	2.8	173	10	30	18
8'-6"	3.0	187	11	30	18
9'-0"	3.1	200	12	30	18
9'-6"	3.3	205	12	30	18
10'-0"	3.4	219	13	30	18

@ INCLUDES 1% FOR OVERRUN.
NOTE: CONCRETE QUANTITIES INCLUDE VOLUME OCCUPIED BY PIPE.

QUANTITIES FOR ONE INLET



SECTION E-E
APPROXIMATE WEIGHT = 590 LBS.



SECTION F-F

MARK	NO. REQ'D.	DIMENSIONS X	DIMENSIONS Y	LENGTH
401	4	3'-6"	2'-2"	13'-4"
402	2	3'-4½"	* 2'-6½"	8'-5½"
403	5	2'-1½"	* 2'-7"	7'-2½"

* ADD 6 IN. TO THIS DIMENSION FOR EACH 6 IN. INCREASE OF "H" OVER 3 FT.-0 IN.

BAR LIST FOR H = 3 FT.-0 IN.

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Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
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Project Development Branch JBK

CONCRETE INLET TYPE 13

STANDARD PLAN NO. M-604-13
Standard Sheet No. 1 of 1
Issued by the Project Development Branch: July 31, 2019
Project Sheet Number:

SHEET NO. C-6.5

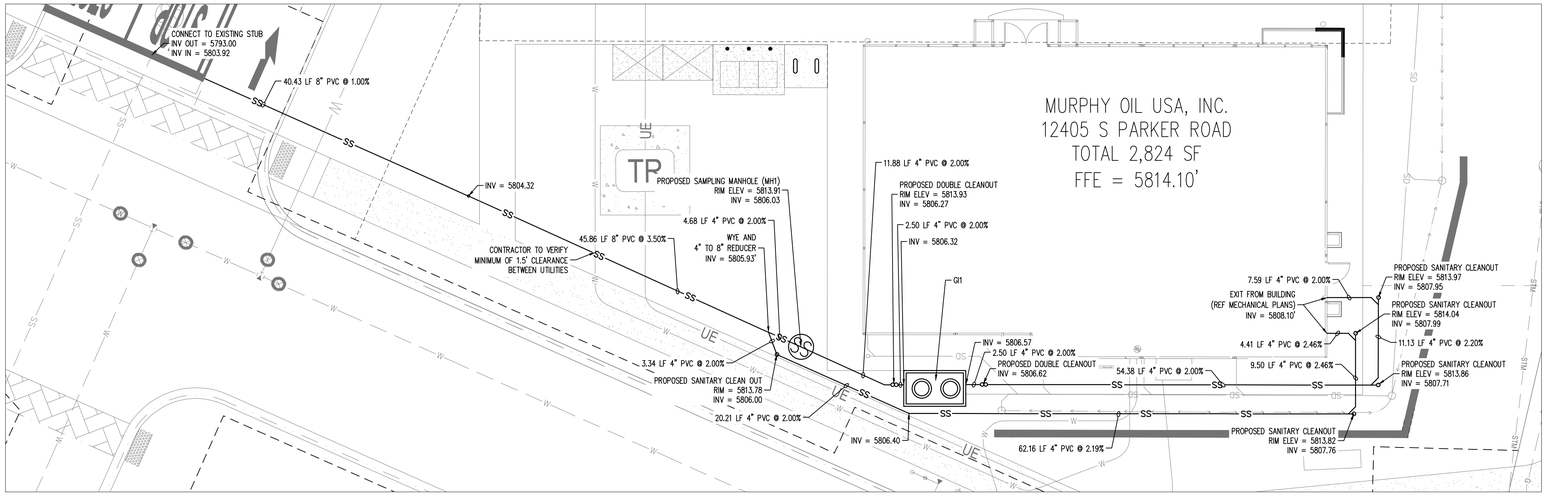
COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/03/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

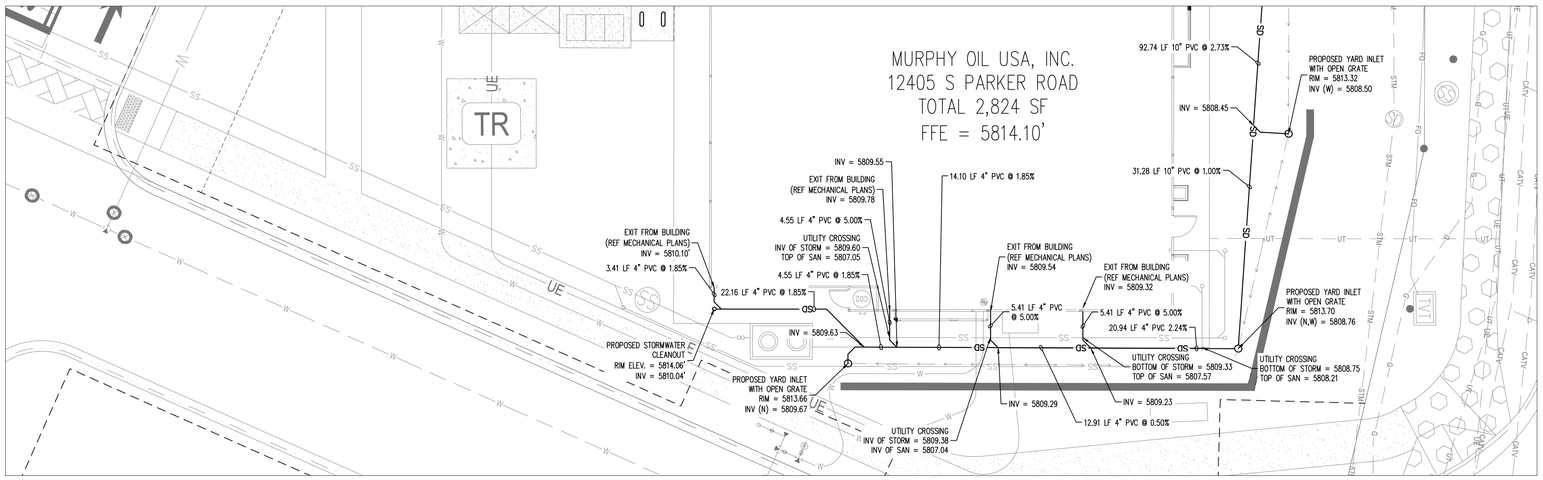
UTILITY DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
COLORADO
PARKER

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730



SANITARY PLAN



STORM PLAN

UTILITY LEGEND

- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED ROOF DRAIN
- PROPOSED MANHOLE
- PROPOSED CLEANOUT
- EXISTING GATE VALVE
- PROPOSED GATE VALVE
- EXISTING FIRE HYDRANT
- PROPOSED HORIZONTAL BEND
- PROPOSED FIRE HYDRANT
- EXISTING INLET
- PROPOSED INLET

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD.. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

NOTE: CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL INFORMATION FOR FINAL ACCEPTANCE OF WORK FOR ANY LOCAL, STATE OR FEDERAL AGENCY, UTILITY DISTRICT OR ANY OTHER AGENCY OR DISTRICT HAVING APPROVAL AUTHORITY OVER WORK. THIS INFORMATION MAY INCLUDE, BUT IS NOT LIMITED TO, AS-BUILT PLANS, CERTIFICATIONS, INSPECTIONS AND REPORTS.

SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.

GENERAL UTILITY NOTES

1. ALL BUILDING WATER LINES FROM METER TOWARDS BUILDING SHALL BE SCHEDULE 40 PVC MEETING ASTM D1785 & D2665 SPECIFICATIONS AND SHALL BE RATED FOR USE WITH POTABLE WATER PER NSF ST. 61 WITH 36" MIN. COVER.
2. ALL SANITARY SEWER LINES SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, PROVIDE 36" MINIMUM COVER.
3. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
4. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATE WITH THE DESIGNATED UTILITY COMPANIES.
5. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.
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7. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
8. REFERENCE #2020-SUDP-000XXXX FOR PLUMBING AND MAINLINE INSPECTION COORDINATION PURPOSES.

SHEET NO. C-6.6

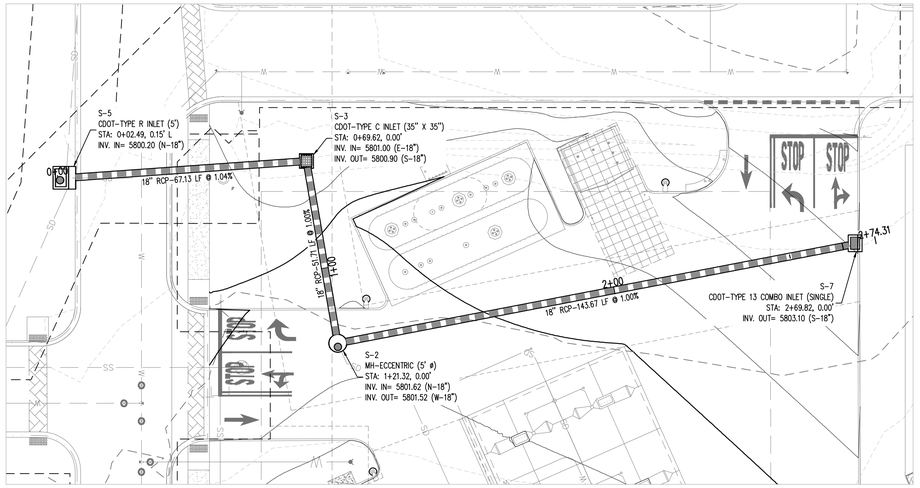
COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

STORM AND SANITARY PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

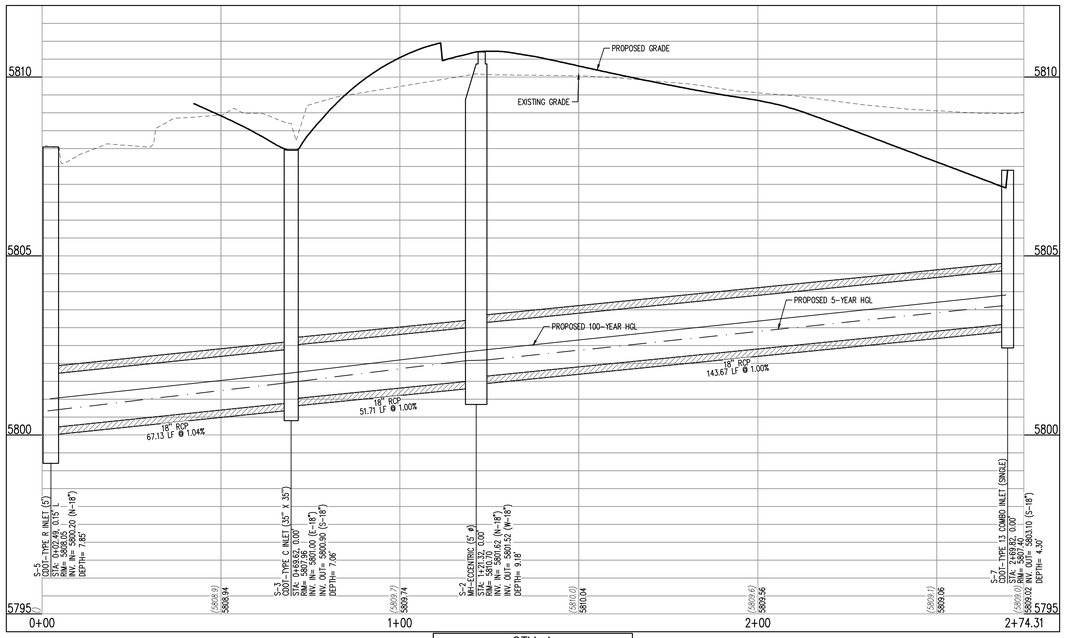
MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730



N

0 10 20

SCALE: 1"=20'



STM A

STA: 0+00 – 2+74.31

SCALE: H: 1"=20' V: 1"=10'

UTILITY LEGEND

- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED ROOF DRAIN
- PROPOSED MANHOLE
- PROPOSED CLEANOUT
- EXISTING GATE VALVE
- PROPOSED GATE VALVE
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- PROPOSED FIRE HYDRANT
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8. REFERENCE #2020-SUDP-OOOXXXX FOR PLUMBING AND MAINLINE INSPECTION COORDINATION PURPOSES.

SHEET NO. C-6.7

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

OTB	---	JES	KML	KML
DATE	PRN	PM	DES	DRW
08/05/2021				

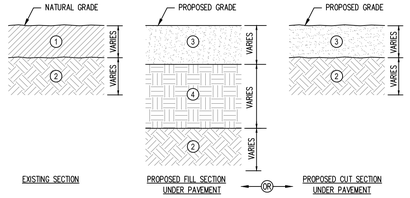
STORM PLAN AND PROFILE
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

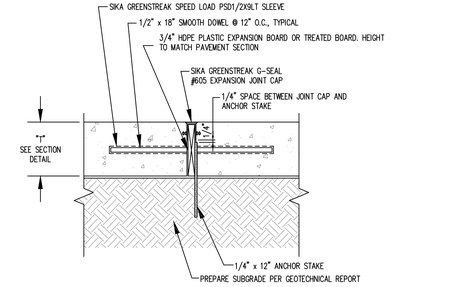
1. CONTRACTOR SHALL UTILIZE THE APPROPRIATE SUPPORT DEVICE TO ACCEPT MESH OR REBAR REINFORCEMENT TYPES.
2. CHAIR SUPPORTS SHALL BE PLACED AT THREE FEET (3') O.C.E.W. MIN. SPACING.
3. SUPPORT SHALL BE SIZED TO PROVIDE ADEQUATE STRUCTURAL SUPPORT DURING CONSTRUCTION AND MAINTAIN THE REINFORCEMENT WITHIN THE CENTER OF THE PAVEMENT SECTION.

CHAIR SUPPORT FOR REINFORCED CONCRETE PAVEMENT
N.T.S. 6A



1. TOPSOIL LAYER – REMOVE SURFICIAL VEGETATION (6" MIN.) INCLUDING ORGANIC LADEN TOPSOIL, TREES, ROOTS, SOFT SOILS AND OTHER UNSUITABLE MATERIALS INCLUDING AND 5' BEYOND CONSTRUCTION LIMITS FROM THE SITE. THE TOPSOIL AND VEGETATION MATERIAL MAY BE STOCKPILED FOR USE IN LANDSCAPING OR REMOVE FROM SITE AS DIRECTED BY OWNER.
2. EXISTING SUBGRADE – EXISTING SOILS AT TIME OF GEOTECH INVESTIGATION WERE FOUND TO BE LOOSE/SOFT. PRIOR TO FILL OR STONE BASE PLACEMENT, SUBGRADE SHALL BE PROOFROLLED WITH A HEAVY, LOADED PNEUMATIC-TIRED VEHICLE (20 TO 25 TON LOADED DUMP TRUCK). AFTER PROOFROLLING AND PRIOR TO PLACEMENT OF FILL, UPPER SURFACE SOILS SHALL BE SCARIFIED (8" MIN. DEPTH) AND RE-COMPACTED (95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698)). FOR RE-COMPACTION, SOILS SHALL BE PROCESSED TO WITHIN ONE (1) PERCENTAGE POINT BELOW AND THREE (3) PERCENTAGE POINTS ABOVE OPTIMUM MOISTURE CONTENT. AREAS OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOAD SHALL BE UNDERCUT AND REPLACED WITH CRUSHED STONE OR SELECT FILL MATERIAL AS DESCRIBED IN (4) BELOW.
3. PROPOSED PAVEMENT AND BASE MATERIAL – REFERENCE 11B/11C THIS SHEET
4. FILL MATERIAL (IMPORTED MATERIAL OR NATIVE FILL MATERIAL) – SHALL CONSIST OF HOMOGENOUS SOILS FREE OF ORGANIC MATTER AND DEBRIS, OR PARTICLES LARGER THAN THREE (3) INCHES IN DIAMETER WITH LIQUID LIMIT LESS THAN 40, PLASTICITY INDEX BETWEEN 8 AND 20, AND CONSIST OF SILTY-CLAYEY SANDS (SM-SC), LOW PLASTICITY SANDY CLAYS (CL), OR CLAYEY SANDS (SC), AS DEFINED BY THE UNIFIED CLASSIFICATION SYSTEM. SELECT FILL SHOULD BE PLACED IN MAXIMUM LIFTS OF 8" AND BE COMPACTED TO AT LEAST 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557). IT RECOMMENDED THAT THE AGGREGATE BASE COURSE FOR PAVEMENT CONSTRUCTION BE COMPACTED TO 100% OF THE MATERIALS MODIFIED PROCTOR (ASTM D-1557) MAXIMUM DRY DENSITY. REFERENCE GEOTECHNICAL REPORT BY UNITED CONSULTING DATED JANUARY 14, 2020.

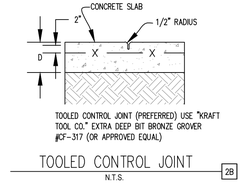
TYPICAL EARTHWORK SECTIONS
N.T.S. 5E



INSTALLATION STEPS:

1. TERMINATE STAKES BELOW THE TOP OF THE BOARD A DISTANCE EQUAL TO THE DEPTH OF THE JOINT CAP PROFILE PLUS 1/4" MIN.
2. USE FACTORY FABRICATIONS FOR INTERSECTIONS AND CHANGES OF DIRECTION. ENSURE ALL SECTIONS TO BE SPLICED ARE CUT SQUARE AND BOND TOGETHER USING G-SEAL ADHESIVE.
3. SECURE JOINT CAP TO THE EXPANSION BOARD WITH STAPLES, NAILS, SCREWS BELOW THE PROFILE RIBS (APPROXIMATELY 18" ON CENTER) OR ADHESIVE TO PREVENT DISLOCATION DURING CONCRETE PLACEMENT.
4. INSERT SPEED LOAD SLEEVES INTO HOLES DRILLED THROUGH EXPANSION BOARDS AT MINIMUM 2" BELOW TOP OF SLAB. ENSURE SPEED LOAD SLEEVES ARE SECURED IN EXPANSION BOARD WITH BASE FLANGE FLAT TO EXPANSION BOARD FACE.
5. INSERT SMOOTH DOWEL INTO SPEED LOAD SLEEVES AND PLACE CONCRETE USING NORMAL PLACEMENT TECHNIQUES. UTILIZING THE JOINT CAP AS A SCREED RAIL, VIBRATE CONCRETE TO ENSURE GOOD CONSOLIDATION AROUND JOINT CAP, SPEED LOAD AND REBAR.

DOWEL CONSTRUCTION JOINT IN CONCRETE SLAB DETAIL
N.T.S. 2C



TOOLED CONTROL JOINT
N.T.S. 2B

PAVING AND JOINT NOTES

1. CONCRETE ON ASPHALT UTILITY CUT REPAIR TO BE DYED TO MATCH SURROUNDING ASPHALT.
2. UNLESS OTHERWISE SHOWN, CALLED OUT OR SPECIFIED HEREON ALL CURB AND GUTTER ADJACENT TO ASPHALT PAVING SHALL BE INSTALLED PER DETAIL 1A (SEE DETAILS SHEET C-9).
3. PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS FOR THE GEOTECH REPORT PREPARED BY UNITED CONSULTING, DATED JANUARY 14, 2020 AND THIS PAVING PLAN OVER THE ENTIRE PARKING LOT AREA AND ALL APPROACH DRIVES.
4. SEE ASSOCIATED PLANS FOR CANOPY, COLUMN, PUMP ISLAND DETAILS, AND LAYOUT.
5. SURFACE COURSE, BASE, AND SUB-GRADE SHALL BE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS FOR LOCAL SOILS OR DRAINAGE CONDITIONS AND/OR METHODS.
6. SUBGRADE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR OR AS SPECIFIED BY THE GEOTECHNICAL REPORT WHICHEVER IS MORE STRINGENT.
7. FOLLOW RECOMMENDATIONS IN GEOTECH REPORT FOR REINFORCEMENT OF CONCRETE SECTIONS.
8. FOLLOW RECOMMENDATIONS IN GEOTECH REPORT FOR PERMANENT UNDERDRAINS IN THE PAVEMENT AREAS.
9. THIS PLAN IS FOR RELATIVE LAYOUT AND SCOPE OF WORK PURPOSES ONLY. REFER TO SITE PLAN FOR RELATIONSHIP OF THESE STRUCTURE TO EXISTING CONDITIONS AND REFERENCE POINTS.
10. ½" FOAM EXPANSION JOINT MATERIAL SHALL SURROUND THE CANOPY COLUMNS, U-BUMPERS, BOLLARDS, AND DISPENSER ISLANDS AT GRADE. SEE TANK-PIPING PLANS (STANDARD YARD AND DRIVE DETAILS).
11. SEE TANK-PIPING PLANS FOR NOTES ON REBAR REINFORCING AROUND UST MANHOLE.
12. SEE TANK-PIPING PLANS FOR CONDUIT PIPING LAYOUT.
13. DOWELED JOINTS SHALL BE LOCATED ON 12' CENTERS, ALONG THE INSIDE OF THE MOST EXTERIOR SLABS. DOWELS SHALL BE SMOOTH TYPE AND INSERTED INTO GREENSTREAK SPEED DOWEL FORMS. THE DOWEL IS LOCATED AT MID-SLAB DEPTH AND HELD IN PLACE LEVEL AND PERPENDICULAR TO THE JOINT USING THE SPEED DOWEL, WHICH REMAINS WITH THE FORM. AFTER THE FORMS ARE STRIPPED, THE DOWELS SHOULD BE CHECKED TO ASSURE FULL INSERTION AND ALIGNMENT IN THE INITIAL SLAB BEFORE POURING THE ADJACENT SLAB. DOWELS OCCURRING UNDER AND PARALLEL TO CONTROL JOINTS SHOULD BE DELETED. SEE TANK-PIPING PLANS FOR ADDITIONAL INFORMATION. SEE TANK-PIPING PLANS FOR ADDITIONAL INFORMATION.

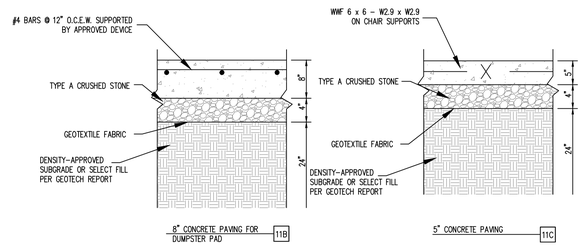
SITE LEGEND

- PROPERTY LINE
- TOOLED CONTROL JOINT (REFERENCE DETAIL 2B)
- DOWEL CONSTRUCTION JOINT IN CONCRETE SLAB (REFERENCE DETAIL 2C)
- 5" STANDARD DUTY CONCRETE PAVEMENT (REFERENCE DETAIL 11C)
- 8" HEAVY DUTY CONCRETE DUMPSTER PAD (REFERENCE DETAIL 11B)

SEE SHEET C-13 FOR CONCRETE SPECIFICATIONS.

GC IS REFERRED TO GEOTECHNICAL REPORT PREPARED BY UNITED CONSULTING DATED JANUARY 14, 2020 FOR SITE PREPARATION CONDITIONS AND PAVEMENT REQUIREMENTS.

REFERENCE COVER SHEET FOR LEGAL DESCRIPTION, BENCHMARK, BASIS OF BEARING, AND FLOODPLAIN STATEMENT



8" CONCRETE PAVING FOR DUMPSTER PAD 11B

5" CONCRETE PAVING 11C

NOTES:

1. CONCRETE SHALL BE 4,000 PSI MIN. COMPRESSIVE STRENGTH.
2. SEE SHEET C-12 FOR CONCRETE SPECIFICATIONS.

CONCRETE PAVING
N.T.S.

SHEET NO. C-7

COLORADO LICENSED MICHAEL E. MAY 58388 PROFESSIONAL ENGINEER 08/05/2021

DATE	PRN	---	JES	PM	KML	DES	KML	DRW
08/05/2021								
OTB								

PAVING JOINT PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
COLORADO
PARKER

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

LEGAL DESCRIPTION

A PORTION OF LOT 1 BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M., TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO.

BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN, VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

SITE BENCHMARKS:

SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5634.76

SITE BENCHMARK #2:#5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062";EL = 5640.22

BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

SHEET NO. C-8

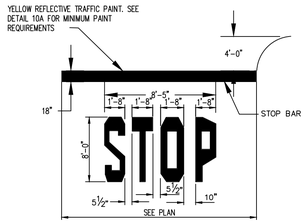
COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

TRUCK ROUTE
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

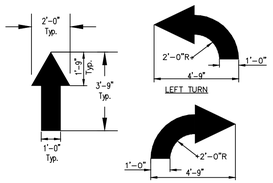
Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730



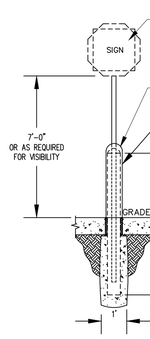
YELLOW REFLECTIVE TRAFFIC PAINT. SEE DETAIL 10A FOR MINIMUM PAINT REQUIREMENTS

STOP BAR
N.T.S. 10B

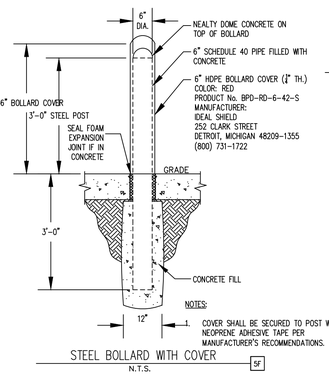


NOTE:
ALL TRAFFIC FLOW ARROWS TO BE REFLECTIVE YELLOW PAINT.

TRAFFIC FLOW ARROW
N.T.S. 10A

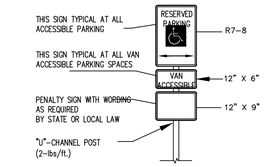


SIGN IN BOLLARD
N.T.S. 5B



NOTES:
1. COVER SHALL BE SECURED TO POST WITH NEOPRENE ADHESIVE TAPE PER MANUFACTURER'S RECOMMENDATIONS.

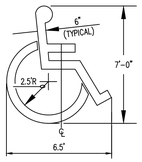
STEEL BOLLARD WITH COVER
N.T.S. 5F



ACCESSIBLE PARKING SIGN
N.T.S. 9V

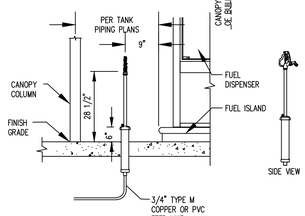
MINIMUM REQUIREMENTS:

1. USE TRAINED AND EXPERIENCED PERSONNEL IN APPLYING THE PRODUCTS AND OPERATING THE EQUIPMENT REQUIRED FOR PROPERLY PERFORMED WORK.
2. PAINT SHALL BE WATERBORNE OR SOLVENT BORNE, COLOR SHALL BE REFLECTIVE YELLOW UNLESS OTHERWISE SPECIFIED. PAVEMENT MARKING PAINTS SHALL COMPLY WITH APPLICABLE STATE AND LOCAL LAWS ENACTED TO ENSURE COMPLIANCE WITH FEDERAL CLEAN AIR STANDARDS; PAINT MATERIALS SHALL CONFORM TO THE RESTRICTIONS OF THE LOCAL AIR POLLUTION CONTROL DISTRICT.
3. WATERBORNE PAINT: PAINTS SHALL CONFORM TO FEDERAL SPECIFICATION TT-P-1952 (LATEST REVISION) AND ALL APPLICABLE ASTM STANDARDS WITHIN THIS SPECIFICATION.
4. SOLVENT BORNE PAINT: PAINT SHALL CONFORM TO FEDERAL SPECIFICATION A-A-2886 OR ASSHTO M248. PAINT SHALL BE NON-BLEEDING, QUICK-DRYING AND ALKYD PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND BE MIXED IN ACCORDANCE WITH MANUFACTURE'S INSTRUCTIONS BEFORE APPLICATION FOR COLOR YELLOW (UNLESS OTHERWISE SPECIFIED).
5. GLASS BEADS: ASSHTO M 247, TYPE 1 OR FS TT-B-1325, TYPE 1, GRADATION A.
6. APPLY TWO COATS OF PAINT, AT MANUFACTURER'S RECOMMENDED RATE, WITHOUT ADDITION OF THINNER, WITH MAXIMUM OF 100 SQUARE FEET PER GALLON OR AS REQUIRED TO PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS AND DRY FILM THICKNESS OF 7½ MILS PER COAT. PAINT SHALL BE APPLIED FOR A TOTAL DRY FILM THICKNESS OF 15 MILS. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES.
7. APPLY GLASS BEADS AT PEDESTRIAN CROSSWALK STRIPING AND AT LANE STRIPING AND ARROWS. BROADCAST GLASS BEADS UNIFORMLY INTO WET MARKINGS AT A RATE OF 6 LB/GAL.



NOTES:
1. LOCATE AT EDGE OF PARKING SPACE UNLESS ACCOMPANIED BY "VAN" LETTERING.
2. COLOR PER ADA REQUIREMENTS

ACCESSIBLE PARKING SYMBOL
N.T.S. 9U



NOTES:
1. CONTRACTOR TO PROVIDE AND INSTALL WOODFORD MODEL S-3 SANITARY YARD HYDRANT PER MANUFACTURER'S SPECIFICATIONS. SEE UTILITY PLAN TO DETERMINE LOCATION.
2. FREEZELESS YARD HYDRANT TO BE LOCATED BETWEEN CANOPY COLUMN AND FUEL ISLAND FOR PROTECTION.
3. REFER TO TANK/PIPING PLANS TO VERIFY LOCATION OF TRASH CAN LOCATION PRIOR TO INSTALLATION.

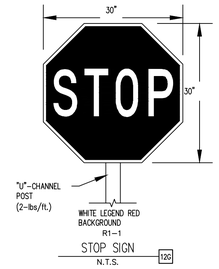
FREEZELESS HYDRANT WITH HOSE BIBB
N.T.S. 20A

USE ALUM. CLAMPS FOR MOUNTING SIGNS TO POST, SA-50 ITEM NO. 03K237 FOR SINGLE SIGNS & 03K243 FOR BACK TO BACK SIGNS OR APPROVED EQUAL

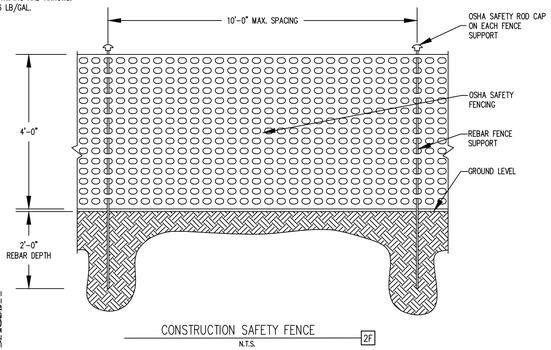
18"x24" GALV. STEEL W/ BAKED ENAMEL COMPLYING WITH THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "UNIFORM TRAFFIC CONTROL DEVICES" (R6-1R & R6-1L)

2 3/8" GALV. STEEL POST W/ WELDED CAP ANCHORED 24" IN SOLID CONCRETE (12" DIA.)

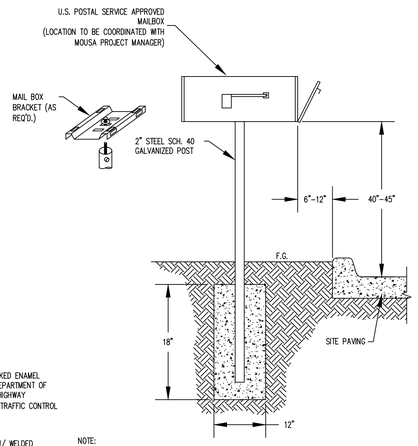
"ONE WAY" SIGN
N.T.S. 11A



STOP SIGN
N.T.S. 12G

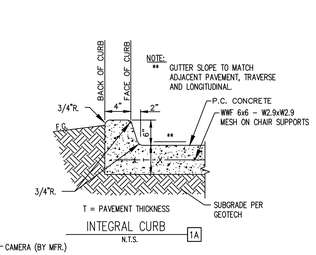


CONSTRUCTION SAFETY FENCE
N.T.S. 2F

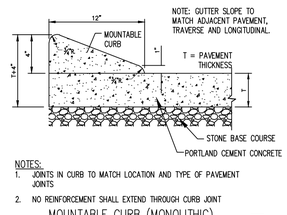


NOTE:
1. THE POST-TO-BOX ATTACHMENT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT THE BOX FROM SEPARATING FROM THE POST TOP IF THE INSTALLATION IS STRUCK BY AN AUTOMOBILE OR LIGHT TRUCK.

MAIL BOX
N.T.S. 21J

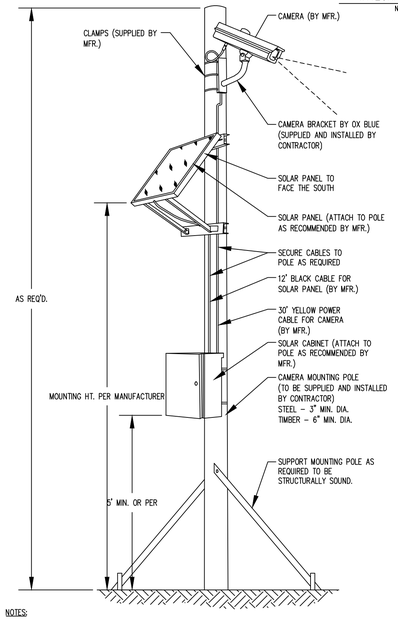


INTEGRAL CURB
N.T.S. 1A



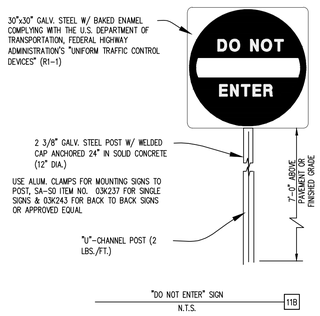
NOTES:
1. JOINTS IN CURB TO MATCH LOCATION AND TYPE OF PAVEMENT JOINTS
2. NO REINFORCEMENT SHALL EXTEND THROUGH CURB JOINT

MOUNTABLE CURB (MONOLITHIC)
N.T.S. 1D

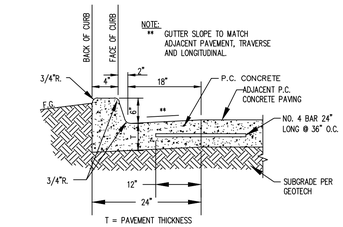


NOTES:
1. CAMERA AND SOLAR POWER STATION BY OX BLUE CORPORATION.
2. CAMERA TO BE INSTALLED AND ACTIVATED PER MFR. REQUIREMENTS BY GC PRIOR TO CONSTRUCTION.
3. MOUNTING POLE TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
4. LAG BOLTS/CLAMPS USED TO ATTACH CAMERA, SOLAR PANEL AND CABINET TO POLE ARE TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
5. CONSTRUCTION CAMERA SHALL BE COORDINATED WITH MURPHY CONSTRUCTION MANAGER AND PLACED ON MURPHY PROPERTY WHERE THE ENTIRE WORK SITE CAN BE VIEWED WITH CAMERA.
6. MOUNTING POLE TO BE STRUCTURALLY SOUND & WITHSTAND 300 LBS OF FORCE AT 5' ABOVE GROUND.
7. FOR ANY MOUNTING OF CAMERA ON OFF-SITE STRUCTURE, CONTRACTOR MUST SECURE PERMITS AND/OR PERMISSION FROM RESPECTIVE OWNER AND PROVIDE TO MURPHY.
8. MOUNTING CAMERA SYSTEM ON JOB SHACK IS NOT ALLOWED.

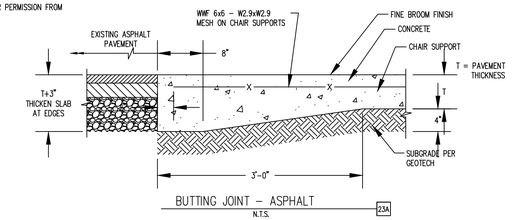
CONSTRUCTION CAMERA
N.T.S. 18C



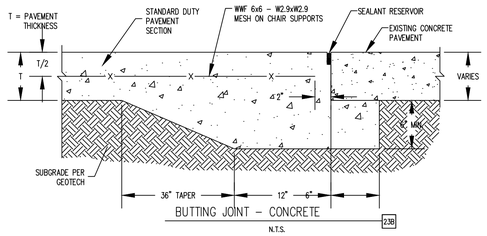
"DO NOT ENTER" SIGN
N.T.S. 11B



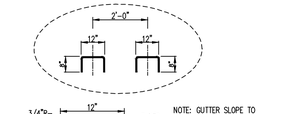
CONCRETE CURB AND GUTTER (OPTIONAL)
N.T.S. 1B



BUTTING JOINT - ASPHALT
N.T.S. 23A



BUTTING JOINT - CONCRETE
N.T.S. 23B



MOUNTABLE CURB
N.T.S. 1C

SHEET NO. C-9

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/01/2021

DATE	PRN	JES	KML
08/05/2021	---	PM	DES
OTB			DRW

DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
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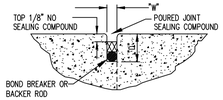
200 PEACH STREET
EL DORADO, AR 71730



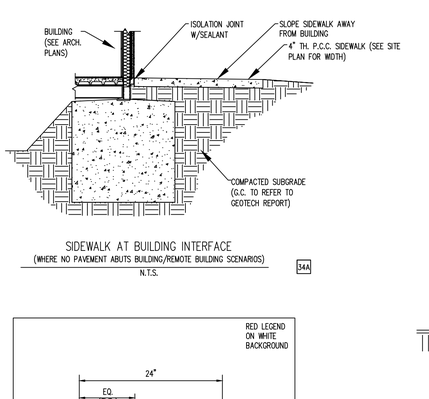
DIMENSION	SAWCUT	FORMED
"W"	1/8" – 1/4"	1/2"
"D"	1"	1 1/8"

NOTES:
1. SEALANT RESERVOIR CAN BE FORMED (CAST-IN-PLACE) OR SAWCUT.
2. SEALANT SHALL BE SIKAFLEX-1C-SL SELF LEVELING SEALANT, COLOR LIMESTONE.
3. PROVIDE 3/4" BACKER ROD FOR FORMED SEALANT RESERVOIR.
4. PROVIDE BOND BREAKER FOR SAWCUT SEALANT RESERVOIR.
5. TOOL 1/2" RADIUS FOR FORMED SEALANT RESERVOIR.

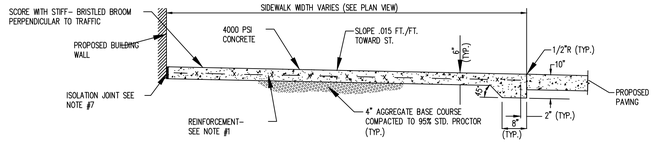
SEALANT RESERVOIR DETAIL
(ADJACENT TO STRUCTURES)
N.T.S. 2G

SIDEWALK AT BUILDING INTERFACE
(WHERE NO PAVEMENT ABUTS BUILDING/REMOTE BUILDING SCENARIOS)
N.T.S. 3A

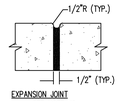
"NO PARKING – FIRE LANE" SIGN
N.T.S.



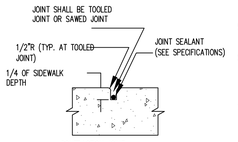
BIKE RACK DETAIL
SCALE: 1" = 1'-0"



SECTION A–A



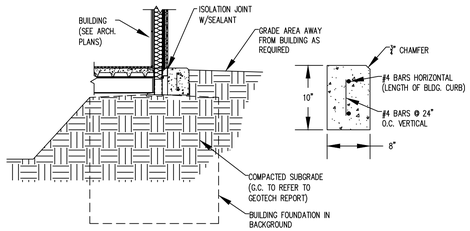
EXPANSION JOINT
SEE NOTE #6



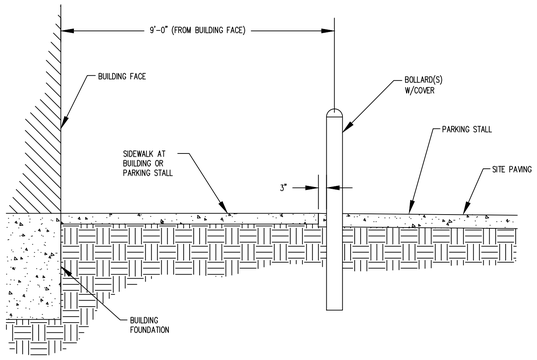
CONTRACTION JOINT
SEE NOTE #3

NOTE:
1. REINFORCEMENT SHALL BE NO.3 BARS, 24" O.C. EACH WAY OR 6 X 6 –W2.9 X W2.9 WWF. REINFORCEMENT SHALL BE PLACED 2" FROM TOP OF SIDEWALK.
2. CONCRETE SHALL BE 3,500 PSI.
3. CONTRACTION JOINTS SHALL BE PLACED A MAXIMUM OF 5' O.C. CONTRACTOR HAS THE OPTION OF A TOOLED JOINT (NOTE 4) OR A SAWED JOINT (NOTE 5).
4. TOOLED JOINTS SHALL BE PLACED IN FRESH CONCRETE WITH A MINIMUM DEPTH OF 1/4 OF THE TOTAL DEPTH OF SIDEWALK. TOOLED JOINT SHALL ALSO HAVE A MINIMUM 1/2" RADIUS ON EXPOSED EDGES AND BE FILLED WITH JOINT SEALANT PER MANUFACTURER'S SPECIFICATIONS.
5. SAWED JOINTS SHALL HAVE A MINIMUM DEPTH OF 1/4 OF THE TOTAL DEPTH OF SIDEWALK. SAWED JOINTS SHALL BE FILLED WITH A JOINT SEALANT PER MANUFACTURER'S SPECIFICATIONS.
6. FULL DEPTH EXPANSION JOINTS SHALL BE PLACED A MAXIMUM OF 25' O.C. PREMOLDED JOINT FILLER SHALL BE INSTALLED AT ALL EXPANSION JOINTS. EXTEND JOINT FILLERS FULL WIDTH AND DEPTH OF JOINT, AND NOT LESS THAN 1/2" OR MORE THAN 1" BELOW FINISHED SURFACE. JOINT SEALANT SHALL BE PLACED ABOVE JOINT FILLER IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
7. A FULL DEPTH ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK ABUTS THE BUILDING. PREMOLDED JOINT FILLER SHALL BE INSTALLED AT FULL DEPTH OF JOINT, AND NOT LESS THAN 1/2" OR MORE THAN 1" BELOW FINISHED SURFACE. JOINT SEALANT SHALL BE PLACED ABOVE JOINT FILLER IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. (SEE SEALANT RESERVOIR DETAIL).

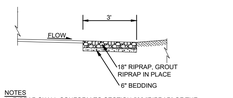
CONCRETE SIDEWALK AT BUILDING (FLUSH TRANSITION)
N.T.S. 3K



BARRIER CURB AT BUILDING INTERFACE
(WHERE SIDEWALK NOT INSTALLED AND/OR WHERE LANDSCAPING IS ADJACENT TO BUILDING)
N.T.S. 34B

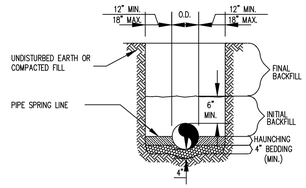


BOLLARD LOCATION AT BUILDING
N.T.S. 20K



NOTES
1. RIPRAP SHALL CONFORM TO SECTION 506 "RIPRAP" OF THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. 12-INCH THICK RIPRAP SHALL MEET THE GRADATION REQUIREMENTS FOR 6-INCH d50 STONE SIZE. 18-INCH THICK RIPRAP SHALL MEET THE GRADATION REQUIRMENTS FOR 9-INCH d50 STONE SIZE.
2. BEDDING MATERIAL SHALL CONSIST OF AGGREGATE BASE COURSE.

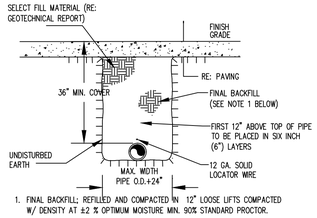
RIPRAP INSTALLATION DETAILS
N.T.S.



GENERAL NOTES

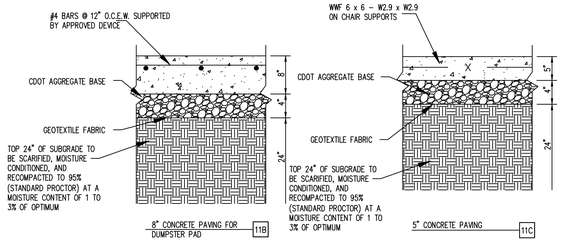
1. BEDDING SHALL BE CLASS I–A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I–B COMPACTED TO 85% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I–A OR CLASS I–B OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I–A WORKED BY HAND, OR CLASS I–B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV–A COMPACTED TO 95% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321–89.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV–A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.

SANITARY SEWER TRENCH AND BEDDING
N.T.S. 42B



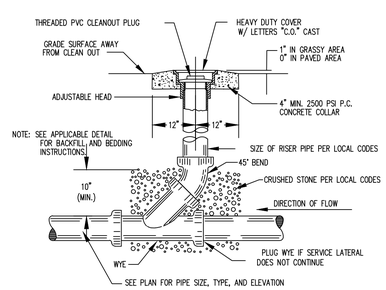
1. FINAL BACKFILL: REFILLED AND COMPACTED IN 12" LOOSE LIFTS COMPACTED W/ DENSITY AT ±2 % OPTIMUM MOISTURE MIN. 90% STANDARD PROCTOR.

TYPICAL TRENCH DETAIL
(FOR WATER/ELECTRICAL/TELEPHONE SERVICE)
N.T.S. 41A

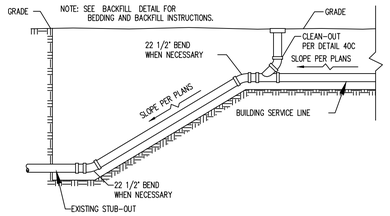


NOTES:
1. CONCRETE SHALL BE 4,000 PSI MIN. COMPRESSIVE STRENGTH.
2. SEE SHEET C–13 FOR CONCRETE SPECIFICATIONS.

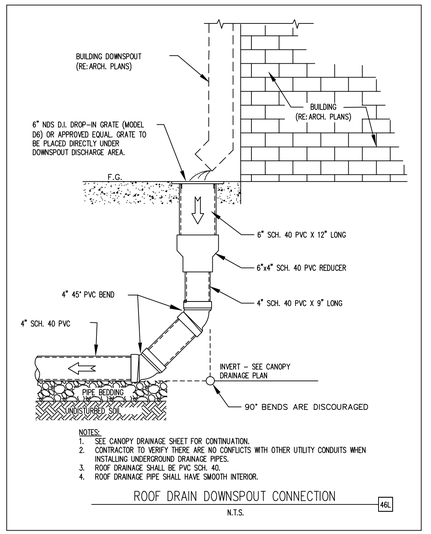
CONCRETE PAVING
N.T.S.



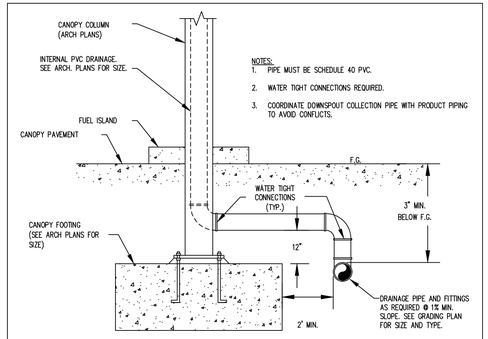
SANITARY SEWER CLEAN–OUT
N.T.S. 40C



SANITARY SEWER SERVICE CONNECTION TO EXISTING STUB–OUT
N.T.S. 40E



ROOF DRAIN DOWNSPOUT CONNECTION
N.T.S. 46L



DOWNSPOUT COLLECTOR
N.T.S. 80D

SHEET NO. C-10

COLORADO LICENSED
MICHAEL E. MAIN
58388
PROFESSIONAL ENGINEER
09/01/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

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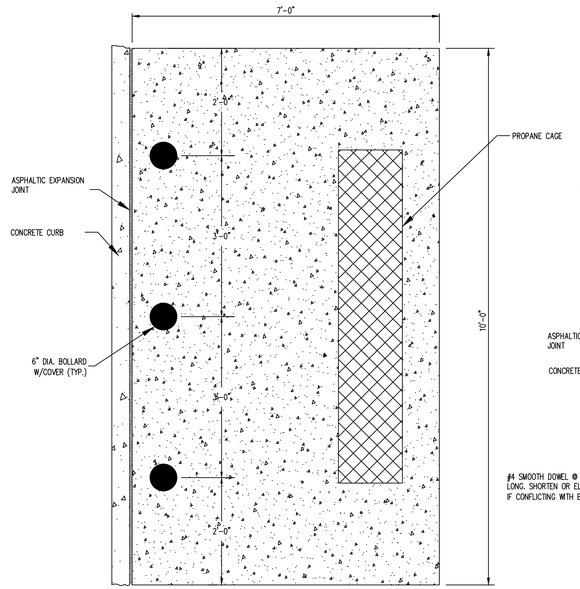
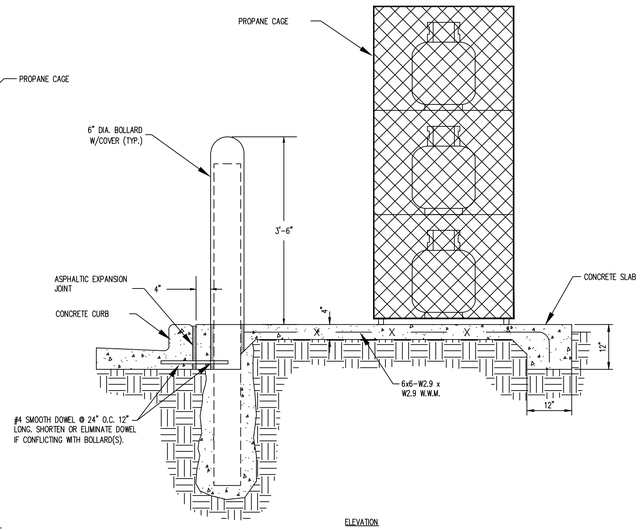
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730



TOP VIEW

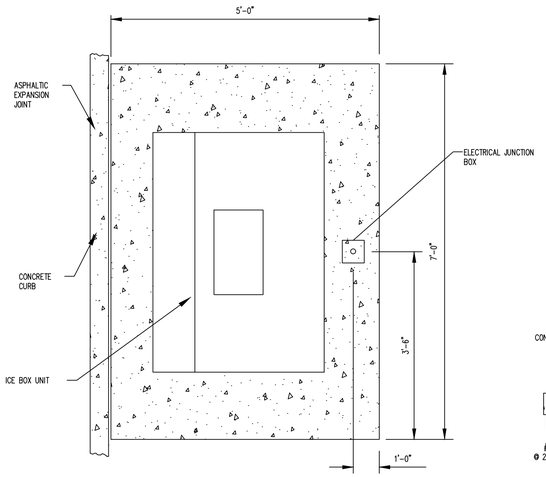


ELEVATION

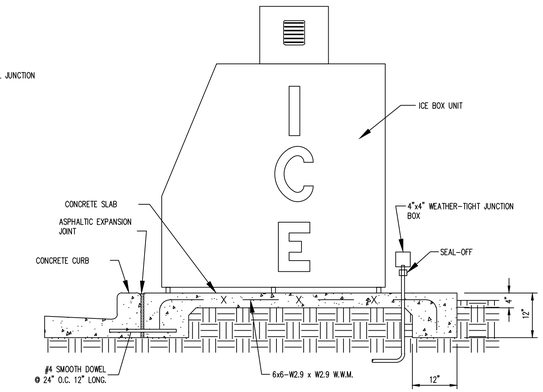
NOTE: SLOPE PAD FOR POSITIVE DRAINAGE (0.5% MIN.)

PROPANE MOUNTING SLAB DETAIL

N.T.S. 21U



TOP VIEW

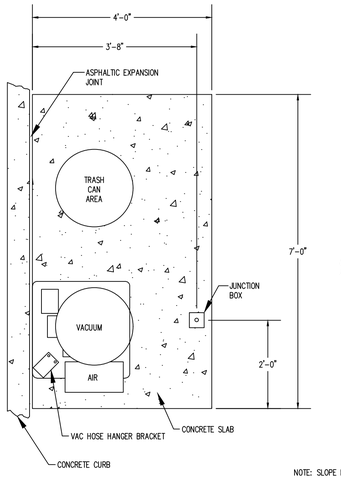


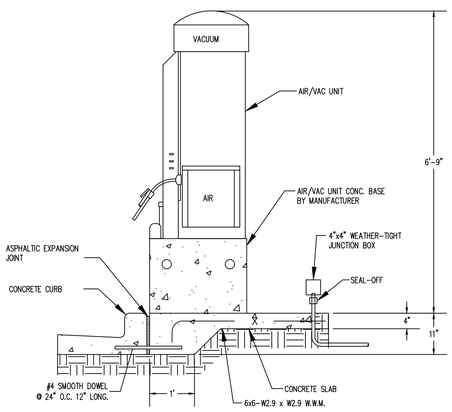
ELEVATION

NOTE:
1. SLOPE PAD FOR POSITIVE DRAINAGE (0.5% MIN.)
2. SEE SITE PLAN FOR NUMBER OF ICE UNITS.

ICE BOX MOUNTING SLAB DETAIL

N.T.S. 21P

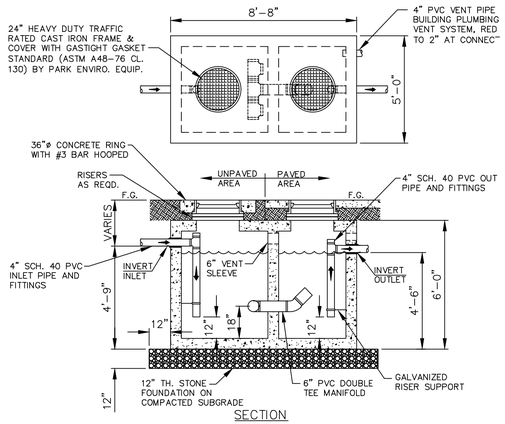




NOTE: SLOPE PAD FOR POSITIVE DRAINAGE (0.5% MIN.)

AIR/VAC MOUNTING SLAB DETAIL

N.T.S. 21G



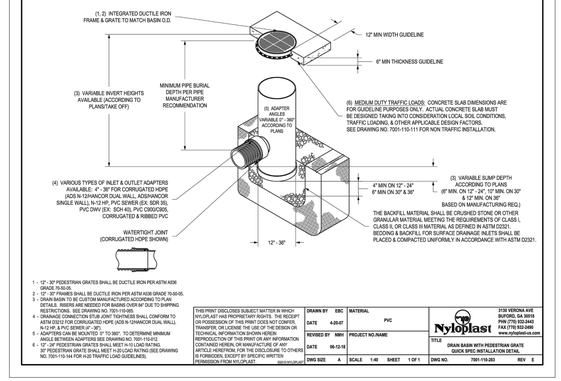
SECTION

NOTES:
1. CONCRETE SHALL BE 4,500 PSI @ 28 DAYS. REINFORCEMENT SHALL BE GRADE 60 CONFORMING TO ASTM A615.
2. GREASE INTERCEPTOR SHALL BE MODEL GT-1000 AS PROVIDED BY PARK ENVIROMENTAL EQUIPMENT (1-888-611-7275) OR APPROVED EQUAL.
3. AFTER FINAL INSPECTION AND PRIOR TO STORE OPENING, GC TO FILL GREASE TRAP WITH WATER.

1,000 GAL. GREASE INTERCEPTOR

N.T.S. 45G

NYLOPLAST DRAIN BASIN WITH PEDESTRIAN GRATE



1 - 12" - 30" PEDESTRIAN GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - 12" - 30" FRAME & GRATE SHALL INCLUDE PICTURE FRAME AS SHOWN IN DETAILS. RISERS ARE NEEDED FOR RAISING OVER 8" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-005.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), ASTM F477 FOR PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 24" PEDESTRIAN GRATES SHALL MEET H-10 LOAD RATING. 30" PEDESTRIAN GRATE SHALL MEET H-20 LOAD RATING (SEE DRAWING NO. 7001-110-144 FOR H-20 TRAFFIC LOAD GUIDELINES).

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DRAWN BY	EBC	MATERIAL	PVC
DATE	4-24-07		
REVISED BY	MBH	PROJECT NO./NAME	
DATE	06-12-15		
DWG SIZE	A	SCALE 1:48	SHEET 1 OF 1

Nyloplast
3128 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2440
FAX (770) 932-2490
www.nyloplastus.com

TITLE: DRAIN BASIN WITH PEDESTRIAN GRATE
QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-203 REV E

SHEET NO.
C-11

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/05/2021

OTB	DATE	---	PRN	JES	PM	KML	DES	KML	DRW
	08/05/2021								

DETAILS
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PARKER COLORADO

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Greenwood Village, CO 80111
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GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

CONCRETE SPECIFICATIONS

A. CEMENT
1. PROVIDE AN APPROVED STANDARD BRAND PORTLAND CEMENT CONFORMING TO ASTM C 150.
2. PROVIDE TYPE I NORMAL STRENGTH OR TYPE III HIGH EARLY STRENGTH.

B. AIR ENTRAINMENT
1. PROVIDE AN APPROVED STANDARD BRAND TYPE A ADMIXTURE CONFORMING TO ASTM C 494.
2. PROVIDE AIR ENTRAINED CONCRETE FOR ALL EXPOSED CONCRETE TO BE FINISHED INCLUDING FOUNDATIONS, WALKS, PAVEMENTS, AND RETAINING WALLS.
   2.1. AIR ENTRAINED IS TO BE A MINIMUM OF FIVE PERCENT (5%) AND MAXIMUM OF SEVEN PERCENT (7%) BY VOLUME. EVALUATE CONCRETE TEMPERATURE TO DETERMINE DOSAGE OF AIR ENTRAINING ADMIXTURE.
   2.2. MEASURE THE AIR CONTENT AT THE POINT OF DISCHARGE INTO FORMS OR AT TRUCK.

C. FINE AGGREGATES
1. PROVIDE FINE AGGREGATES CONFORMING TO ASTM C 33 CONSISTING OF NATURAL SAND HAVING CLEAN, HARD, STRONG, DURABLE, UNCOATED GRAINS, FREE OF INJURIOUS AMOUNTS OF DUST, LUMPS, SOFT OR FLAKY PARTICLES, SHALE, ALKALI, ORGANIC MATTER, OR OTHER DELETERIOUS SUBSTANCES.
2. FINE AGGREGATES RANGE PASSING THROUGH A NO. 100 SIEVE (0% TO 7%).
3. IN ADDITION NOT MORE THAN 45 PERCENT IS TO BE RETAINED BETWEEN ANY TWO CONSECUTIVE SIEVES.

D. COARSE AGGREGATES
1. PROVIDE COARSE AGGREGATES CONFORMING TO ASTM C 33 CONSISTING OF CRUSHED STONE OR WASHED GRAVEL HAVING A CLEAN, HARD, STRONG, DURABLE, UNCOATED, PARTICLE FREE FROM INJURIOUS AMOUNTS OF SOFT OR FLAKY PIECES, ALKALI, ORGANIC MATTER, OR OTHER DELETERIOUS SUBSTANCES.
2. PROVIDE COARSE AGGREGATE WITH A MAXIMUM OF 1-1/2 INCHES, WITH A MINIMUM OF 95 PERCENT PASSING A 1-1/2 INCH SIEVE.
3. NOT MORE THAN TEN PERCENT (10%) IS TO PASS A NO. 4 SIEVE.

E. WATER
1. USE CLEAN WATER FREE OF INJURIOUS AMOUNTS OF OILS, ACIDS, ALKALI, SILTS, ORGANIC MATERIALS, OR OTHER SUBSTANCES THAT MAY BE DELETERIOUS TO CONCRETE OR STEEL.

F. CONCRETE MIX DESIGN
1. REQUIRE BATCH TICKETS TO BE FURNISHED UPON DELIVERY OF THE CONCRETE TO ENSURE CONCRETE MEETS THE SPECIFICATION. CONTRACTOR TO PROVIDE PLANT BATCH CERTIFICATIONS TO OWNER'S FIELD REPRESENTATIVE.
2. PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS (3,000 PSI FOR FOOTINGS/RETAINING WALLS) WITH A MINIMUM OF SIX BAGS (564 LBS) OF CEMENT IN EACH CUBIC YARD OF CONCRETE CONFORMING TO ASTM C 94.
3. DO NOT EXCEED THE MAXIMUM WATER CEMENT RATIO OF 0.53.
4. PROVIDE CONCRETE WITH A FOUR INCH DESIGN SLUMP WHEN TESTED WITH A STANDARD SLUMP CONE CONFORMING TO ASTM C 143. SLUMP SHALL BE 3"-5".
   4.1. IF CONCRETE DEVELOPS CONSISTENCY OF DIFFICULT WORKABILITY, THEN A SUPER PLASTICIZER ADMIXTURE MAY BE USED WHEN APPROVED BY OWNER.
   4.2. DO NOT ADD WATER TO INCREASE SLUMP/EXCEED WATER CEMENT RATIO.
5. CALCIUM CHLORIDE SHALL NOT BE USED.
6. FLY ASH SHALL NOT EXCEED CEMENT QUANTITY BY MORE THAN 15% BY WEIGHT.

G. PLACING CONCRETE
1. MIX AND PLACE CONCRETE FOLLOWING ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. SCHEDULE POUR THAT ONCE STARTED REMAINS A CONTINUOUS OPERATION UNTIL THE PARTICULAR SECTION OR PANEL HAS BEEN COMPLETED.
3. PROVIDE CONSTRUCTION JOINT TYPE/LOCATION AS INDICATED ON PAVING PLAN.
4. DEPOSIT CONCRETE INTO THE FINAL POSITION AT THE SPECIFIED SLUMPS WITHOUT SEGREGATION BY RE-HANDLING OR FLOWING.
   4.1. DEPOSIT CONCRETE AT A RATE THAT CONCRETE REMAINS PLASTIC AND FLOWABLE INTO THE SPACES BETWEEN THE REINFORCING BARS.
   4.2. DO NOT DEPOSIT FRESH CONCRETE ON CONCRETE THAT HAS HARDENED SUFFICIENTLY TO CAUSE FORMATION OF SEAMS OR PLANES OF WEAKNESS WITHIN THE SECTION OR PANEL.
   4.3. DO NOT DEPOSIT PARTIALLY HARDENED CONCRETE OR CONCRETE THAT HAS BEEN CONTAMINATED BY FOREIGN MATERIALS.
   4.4. DO NOT RE-TEMPER CONCRETE.
5. THOROUGHLY SCREED AND COMPACT CONCRETE BY MEANS OF MECHANICAL VIBRATORY POWER SCREED. SUPERVISED BY EXPERIENCED PERSONNEL ON ALL FLATWORK.
   5.1. PROVIDE SUFFICIENT VIBRATION INTENSITY TO CAUSE FLOW OR SETTLEMENT AROUND REINFORCEMENT, EMBEDDED ITEMS, AND CORNERS OF THE FORMS: BUT NOT LONG ENOUGH TO CAUSE SEGREGATION OF THE MIX.
   5.2. SUPPLEMENT MECHANICAL VIBRATION BY HAND SPADING IN CORNERS AND ANGLES OF THE FORMS AND ALONG FORM SURFACES WHILE THE CONCRETE IS PLASTIC TO ENSURE EVEN DENSE SURFACES FREE FROM AGGREGATE POCKETS OR HONEYCOMBS.
6. PROTECT CONCRETE FROM EXCESSIVE HEAT AND PREMATURE DRYING BY THE USE OF KRAFT PAPER AND WATER MIST WHEN SITE CONDITIONS DEMAND.
7. COAT CONCRETE IMMEDIATELY AFTER FINISHING IS COMPLETE USING THE SPECIFIED CURATIVE AGENTS NO LONGER THAN 30 MINUTES FOLLOWING FINISHING IF EVAPORATION IS OCCURING.
   7.1. CURING COMPOUND SHALL BE SAFECURE 1000 (WHITE PIGMENTED) BY CHEMASTERS APPLIED PER MANUFACTURER'S SPECIFICATIONS.
8. IF SAWCUTTING IS EMPLOYED, IT MUST OCCUR WITHIN 6 HOURS AFTER INITIAL SET.
   8.1. SPALLING DUE TO SAW CUTTING ACTIONS MAY RESULT IN REJECTION OF THE CONCRETE WORK.
9. PROTECT CONCRETE AREA STRUCTURALLY FROM WINDY CONDITIONS UNTIL PROPERLY CURED.
10. FINISH SHALL BE LIGHT BROOM.

H. FINISH
1. PAVEMENT SURFACE SHALL BE FINISHED BY EITHER MACHINE OR HAND SUITABLE FOR ACCEPTANCE BY OWNER. HAND FINISH SHALL ONLY BE ALLOWED FOR IRREGULAR DIMENSION AREAS WHERE MECHANICAL EQUIPMENT IS IMPRACTICAL OR IN CASE OF EQUIPMENT BREAKDOWN AFTER CONCRETE IS PLACED. TAKE CARE NOT TO "HARD" TROWEL OR OVER DENSIFY PAVEMENT (NO MORE THAN 2 PASSES).
2. AFTER STRIKING OFF AND CONSOLIDATING CONCRETE, SMOOTH SURFACE BY MECHANICAL SCREEDING AND FLOATING TO MINIMIZE OR ELIMINATE HAND FINISHING. ADJUST FLOATING TO COMPACT SURFACE AND PRODUCE UNIFORM TEXTURE. AFTER FLOATING, TEST SURFACE FOR TRUENESS WITH 10'-0" STRAIGHTEDGE. DISTRIBUTE CONCRETE AS REQUIRED TO REMOVE SURFACE IRREGULARITIES AND REFLOAT REPAIRED AREAS TO PROVIDE CONTINUOUS SMOOTH FINISH WITH MECHANICAL TROWEL.
3. WORK EDGES OF SLABS AND FORMED JOINTS WITH EDGING TOOL, ROUNDING EDGE TO 1/2-INCH RADIUS. ELIMINATE TOOL MARKS ON CONCRETE SURFACE. AFTER COMPLETION OF FLOATING AND TROWELLING, WHEN EXCESS MOISTURE OR SURFACE SHEEN HAS DISAPPEARED, COMPLETE SURFACE FINISHING, AS FOLLOWS:
   3.1. INCLINED SLAB SURFACES: PROVIDE COARSE, NONSLIP FINISH BY SCORING SURFACE WITH STIFF-BRISTLED BROOM PERPENDICULAR TO FLOW OF TRAFFIC SO AS TO PRODUCE REGULAR CORRUGATIONS NOT OVER $\frac{1}{16}$ OF AN INCH DEEP.
   3.2. PAVING: PROVIDE COARSE, NONSLIP FINISH BY SCORING SURFACE WITH STIFF-BRISTLED BROOM PERPENDICULAR TO FLOW OF TRAFFIC SO AS TO PRODUCE REGULAR CORRUGATIONS NOT OVER $\frac{1}{16}$ OF AN INCH DEEP.
   3.3. TINE FINISH: MAY BE UTILIZED AT EACH OF THE ENTRANCE DRIVES (SLOPE > 3%) AT THE OWNER'S DISCRETION AND SHALL PROVIDE FOR A $\frac{3}{8}$ INCH MINIMUM SPACING AND 1-1/2 INCH MAXIMUM SPACING. GROOVES PRODUCED IN CONCRETE SHALL BE $\frac{1}{16}$ INCH IN DEPTH WITH A MINIMUM DEPTH OF $\frac{3}{8}$ INCH.
4. DO NOT REMOVE FORMS FOR 24 HOURS AFTER CONCRETE HAS BEEN PLACED. AFTER FORM REMOVAL, CLEAN ENDS OF JOINTS, BACK OF CURBS AND POINT UP MINOR HONEYCOMBED AREAS. REMOVE AND REPLACE AREAS OR SECTIONS WITH MAJOR DEFECTS, AS DIRECTED BY OWNER.
5. SWEEP CONCRETE PAVEMENT AND WASH FREE OF STAINS, DISCOLORATIONS, DIRT AND OTHER FOREIGN MATERIAL PRIOR TO FINAL INSPECTION.
6. PROTECT CONCRETE FROM DAMAGE UNTIL ACCEPTANCE OF WORK. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 14 DAYS AFTER PLACEMENT OR UNTIL 75% OF SPECIFIED STRENGTH IS ACHIEVED.

CONCRETE (CONTINUED)

I. COLD WEATHER REQUIREMENTS
1. FOLLOW THE REQUIREMENTS OF ACI 306.1-90 AND THE FOLLOWING
   1.1. REFER TO "RECOMMENDED PRACTICES FOR COLD WEATHER MASONRY CONSTRUCTION" AS PUBLISHED BY INTERNATIONAL MASONRY INDUSTRY ALL WEATHER COUNCIL FOR TYPICAL COLD WEATHER MASONRY PRACTICES TO BE FOLLOWED.
   1.2. PROVIDE ADEQUATE EQUIPMENT FOR HEATING CONCRETE MATERIALS, AND FOR PROTECTION OF THE CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER.
   1.3. MAINTAIN ,CONCRETE MATERIALS, REINFORCEMENT, FORM WORK, FILLERS, AND GROUND TO BE IN CONTACT WITH THE CONCRETE FREE OF FROST. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE.
   1.4. PROVIDE CONCRETE, DELIVERED IN COLD WEATHER, WITH THE FOLLOWING TEMPERATURES

AIR TEMP.	MIN. CONCRETE TEMP.
30-40 °F	60°
0-30 °F	60°
BELOW 0°F	60°

   1.5. WHEN PRODUCING CONCRETE WITH HEATED AGGREGATES, HEATED WATER OR BOTH, DO NOT ALLOW CONCRETE TO EXCEED 90%%F DURING PRODUCTION OR TRANSPORTATION.
   1.6. ALL CONCRETE SLABS PLACED AT AIR TEMPERATURES FROM 20°F TO 50°F MAY HAVE AN ACCELERATING WATER REDUCING ADMIXTURE ADDITIVE ADDED TO ACCELERATE SETTING TIME AND STRENGTH ADMIXTURE COMPLYING WITH ASTM C 494, TYPE C.
      1.6.1. ACCEPTABLE ADMIXTURES AR EUCLID CHEMICAL COMPANY'S "ACCELGUARD 90", OR EQUAL PRODUCTS BY W.R. MEADOWS, INC. OR W.R. GRACE & CO.
         1.6.1.1. ADD ACCELGUARD 80 W./ WATER & AGGREGATE TO THE READY MIX CONCRETE TRUCK, BUT DO NOT DISPENSE ONTO DRY CONCRETE.
         1.6.1.2. FOR TEMPERATURES 32°F-60°F, ADD AT A RATE OF 16 OZ./100 LBS OF CONCRETE.
         1.6.1.3. FOR TEMPERATURES BELOW 32°F, HEAT AGGREGATE AND USE WARM WATER SO THAT WHEN MIXED CONCRETE TEMPERATURE WILL BE ABOVE 60°.
      1.6.2. FOLLOW THE MANUFACTURER'S INSTRUCTION FOR THE QUANTITY TO BE ADDED TO THE CONCRETE MIX, DEPENDING UPON THE AMBIENT TEMPERATURE, DESIRED RATE OF ACCELERATION, EARLY STRENGTH GAIN, AND STRIPPING SCHEDULE.
   1.7. MAINTAIN CONCRETE ABOVE 50°F IN A MOIST CONDITION FOR A MINIMUM OF SEVEN DAYS AFTER PLACEMENT FOLLOWING THE RECOMMENDATIONS OF ACI 308-92.

J. HOT WEATHER REQUIREMENTS
1. FOLLOWING THE REQUIREMENTS OF ACI 305R.
2. DURING HOT WEATHER, TAKE STEPS TO REDUCE CONCRETE TEMPERATURE AND WATER EVAPORATION BY PROPER ATTENTION TO INGREDIENTS, PRODUCTION METHODS, HANDLING, PLACING, PROTECTION, AND CURING.
3. THE PREFERRED PROTECTION IS A COVERING OF KRAFT PAPER, CONFORMING TO ASTM C 171, FOR A TWENTY FOUR HOUR PERIOD AFTER PLACEMENT – VERIFY WITH PM.

K. CONCRETE FORMWORK
1. PROVIDE DRESSED LUMBER OR MANUFACTURED FORMS CONFORMING TO THE SHAPE, LINES, AND DIMENSIONS OF CONCRETE STRUCTURES INDICATED ON THE DRAWINGS: FREE FROM DEFECTS AND SUFFICIENTLY TIGHT TO PREVENT LEAKAGE OF MORTAR.
2. ALL WOODEN FORMS TO BE NO LESS THAN THE SPECIFIED DEPTH OF THE SLAB TO BE POURED, AND NOT LESS THAN NOMINAL 2" X 4" SIZE.
3. STAKING FOR STRAIGHT SECTIONS SHALL OCCUR NOT LESS FREQUENTLY THAN EVERY FOUR FEET AND SHALL BE BOTH INSIDE AND OUTSIDE OF THE FORM.
4. FOR CURVES, STAKING SHALL OCCUR NOT LESS THAN EVERY FOOT, AND SHALL BE BOTH INSIDE AND OUTSIDE OF THE FORM.
5. STEEL FORMS SHALL BE STAKED ACCORDING TO THEIR DESIGN REQUIREMENTS.
6. ALL REMOVABLE FORMS SHALL BE COATED WITH FORM – RELEASE OIL PRIOR TO PLACEMENT OF CONCRETE.
7. CYLINDRICAL FORMS SHALL BE OF NEW SONOTUBE OR EQUIVALENT DISPOSABLE MATERIALS.
   7.1. THESE MATERIALS MUST BE REMOVED COMPLETELY AFTER USE. ISLAND FORMS SHALL BE POSITIONED USING MASONRY BLOCKING AND STEEL STAKES BOTH INSIDE AND OUTSIDE OF THE FORM, TO ACHIEVE AN AVERAGE AS PER REVEAL HEIGHT AS MEASURED AT THE CENTER OF ANY LONG SIDE OF THE ISLAND.
8. THE SIDES OF THE ISLAND FORM SHALL BE SHIMMED AGAINST THE STAKES TO PROVIDE A PERFECTLY PLUMB FREEBOARD.
9. ALL EDGES CREATED BY REMOVABLE FORMS SHALL BE TOOL-RADIUSED AFTER SURFACE FINISHING TO PROVIDE A SMOOTH BORDER ON ALL SLABS.
10. FORMS SHALL BE REMOVED NO SOONER THAN 24 HOURS FROM THE TIME OF THE POUR.
11. PROPERLY BRACE OR TIE FORMS TOGETHER TO MAINTAIN SHAPE AND POSITION.
12. PROVIDE SQUARE EDGE WOOD OR, IF AVAILABLE, METAL FORMS FOR FLOOR SLABS.
13. BEFORE POURING CONCRETE, REMOVE ALL DEBRIS FROM THE FORMWORK.
14. WET DOWN FORMWORK PRIOR TO PLACEMENT, OR APPLY A FORM RELEASE AGENT FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
15. DO NOT REMOVE FORMWORK AND BRACING UNTIL CONCRETE HAS GAINED SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT, CONSTRUCTION LOADS, AND DESIGN LOADS WHICH ARE LIABLE TO BE IMPOSED ON IT.
16. REMOVE FORMS IN A MANNER TO ASSURE THE COMPLETE SAFETY OF THE STRUCTURE.
17. DO NOT PLACE ANY CONCRETE IF THE SUBGRADE HAS STANDING WATER OR IS MUDDY.

L. STEEL REINFORCEMENT
1. PROVIDE REINFORCING BARS CONFORMING TO ASTM A 615, GRADE 60 FREE OF LOOSE FLAKY RUST, MUD, OIL, OR OTHER COATINGS WILL ADVERSELY AFFECT BONDING CAPACITY.
2. PLACE REINFORCEMENT ACCURATELY AND ADEQUATELY SUPPORTED BY CONCRETE MASONRY UNITS OR OTHER APPROVED SPACERS.
3. SECURE REINFORCEMENT AGAINST DISPLACEMENT WITHIN TOLERANCES SPECIFIED IN "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318).
4. HOLD BARS IN PLACE USING A MINIMUM 18 GAUGE ANNEALED IRON WIRE.
5. SPLICES IN DEFORMED REINFORCING BARS WILL NOT BE PERMITTED UNLESS APPROVED BY OWNER.
6. REINFORCING ROD TO COMPLY WITH ASTM 615, GRADE 60.

M. FOUNDATIONS
1. PROVIDE SMOOTH FINISH AT ALL EXPOSED SURFACES.
2. CONSTRUCT CORNERS WITH A ONE INCH CHAMFER.
3. INCREASE THE DEPTH OF FOUNDATIONS, IF REQUIRED BY FROST LINE CONDITIONS OR BY LOCAL CODES.
4. OBTAIN OWNER APPROVAL OF ADDITIONAL DEPTH REQUIREMENTS BEFORE PLACING CONCRETE.
5. CONSTRUCT TOP ELEVATION OF FOUNDATIONS TO WITHIN +1/4 INCH OF THE ELEVATION INDICATED ON THE DRAWINGS.
6. INSTALL ANCHOR BOLTS WITH A HORIZONTAL TOLERANCE OF +1/8 INCH AND A VERTICAL ALIGNMENT OF +1/8 INCH OUT OF PLUMB.

N. GROUT
1. PROVIDE NON-METALLIC, NON-SHRINK, PREMIXED NON-STAINING GROUT CONTAINING SELECTED SILICA SANDS, ASTM C 150 TYPE I PORTLAND CEMENT, AND SHRINKAGE COMPENSATING AGENTS.
2. ACCEPTABLE PRODUCTS ARE "EMBECO" BY MASTER BUILDERS AND "FIVE STAR GROUT" BY U.S. GROUT CORPORATION.

CONCRETE (CONTINUED)

O. FIELD QUALITY CONTROL
1. TESTING: OWNER WILL ENGAGE A QUALIFIED TESTING/INSPECTION AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TESTING AND INSPECTION REPORTS.
2. TESTING AGENCY:
   2.1. TESTING AGENCY SHALL IMMEDIATELY REPORT TO OWNER ANY FAILURE OF WORK TO COMPLY WITH CONTRACT DOCUMENTS.
   2.2. TESTING AGENCY SHALL REPORT RESULTS OF TESTS AND INSPECTIONS, IN WRITING, TO OWNER.
      2.2.1. TEST REPORTS SHALL INCLUDE REPORTING REQUIREMENTS OF ASTM C31, ASTM C39, AND ACI 301, INCLUDING THE FOLLOWING AS APPLICABLE TO EACH TEST AND INSPECTION:
         2.2.1.1. PROJECT NAME
         2.2.1.2. NAME OF TESTING AGENCY
         2.2.1.3. NAMES AND CERTIFICATION NUMBERS OF FIELD AND LABORATORY TECHNICIANS PERFORMING INSPECTIONS AND TESTING
         2.2.1.4. NAME OF CONCRETE MANUFACTURER
         2.2.1.5. DATE AND TIME OF INSPECTION, SAMPLING, AND FIELD TESTING
         2.2.1.6. LOCATION IN WORK OF CONCRETE REPRESENTED BY SAMPLES
         2.2.1.7. DATE AND TIME SAMPLE WAS OBTAINED
         2.2.1.8. TRUCK AND BATCH TICKET NUMBERS
         2.2.1.9. DESIGN COMPRESSIVE STRENGTH AT 28 DAYS
         2.2.1.10. CONCRETE MIXTURE DESIGNATION
         2.2.1.11. FIELD TEST RESULTS
         2.2.1.12. TYPE OF FRACTURE AND COMPRESSIVE BREAK STRENGTHS AT SEVEN DAYS AND 28 DAYS.
3. CONCRETE TESTS: TESTING COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED IN ACCORDANCE WITH ASTM C 172 SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   3.1. TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE OF EACH CONCRETE MIXTURE NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 CUBIC YARD OR FRACTION THEREOF FOR SLABS, PAVEMENTS, AND WALLS, AND NOT LESS THAN ONCE FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF FOR FOUNDATIONS.
4. SLUMP: ASTM C143:
   4.1. ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
   4.2. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
5. AIR CONTENT: ASTM C231
   5.1. ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S OUR OF EACH CONCRETE MIXTURE.
6. CONCRETE TEMPERATURE: ASTM C1064:
   6.1. ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREE F AND BELOW OR 80 DEGREE F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
7. CURING COMPOUND
   7.1. VERIFY THAT SPECIFIED CURING COMPOUND IS BEING USED.
   7.2. VISUALLY VERIFY THAT THE SPECIFIED CURING COMPOUND WAS APPLIED.
8. COMPRESSION TEST SPECIMENS: ASTM C31:
   8.1. CAST AND LABORATORY CURE ONE SET OF FOUR 6-INCH BY 12-INCH OR FIVE 4-INCH BY 8-INCH CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
9. COMPRESSIVE-STRENGTH TESTS: ASTM C39
   9.1. TEST ONE LABORATORY SPECIMEN AT SEVEN DAYS FOR INFORMATION, ONE SET OF TWO 6-INCH BY 12-INCH OR THREE 4-INCH BY 8-INCH SPECIMENS AT 28 DAYS AND HOLD ONE CYLINDER IN RESERVE.
   9.2. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM THE SET OF SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT 28 DAYS.
10. FIELD VERIFY REINFORCING PLACEMENT, FORMWORK, GREENSTREAK LOCATIONS, AND EXPANSION MATERIAL. THESE ARE VISUAL INSPECTIONS PERFORMED PREPOUR.
11. SOIL TESTS SHALL RECEIVE PASSING GRADE PRIOR TO CONCRETE PLACEMENT.

SHEET NO. C-12

COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
08/13/2021

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

CONCRETE SPECIFICATIONS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
COLORADO
PARKER

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

EARTHWORK SPECIFICATIONS

A. GENERAL
1. REFERENCED PUBLICATIONS: THE FOLLOWING PUBLICATIONS ARE INCLUDED AS PART OF THESE EARTHWORK SPECIFICATIONS:
   1.1. ASTM C 136 – METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES.
   1.2. ASTM D 698 – TEST METHODS FOR MOISTURE-DENSITY RELATIONS OF SOIL AND SOIL-AGGREGATE MIXTURES, USING 5.5-LB (2.49 KG) RAMMER AND 12 INCH (305 MM) DROP.
   1.3. ASTM D 1556 – TEST METHOD FOR DENSITY OF SOIL IN PLACE BY THE SAND-CONE METHOD.
   1.4. ASTM D 4254 – TEST METHODS FOR MINIMUM INDEX DENSITY OF SOILS AND CALCULATION OF RELATIVE DENSITY.
   1.5. ASTM D 1557 – TEST METHOD FOR MOISTURE-DENSITY ELEVATIONS OF SOILS AND SOIL-AGGREGATE MIXTURE USING 10 POUND (4.54 KG) RAMMER AND 18-IN. (457 MM) DROP.
   1.6. ASTM D 2167 – TEST METHOD FOR DNESITY AND UNIT WEIGHT OF SOIL IN PLACE BY THE RUBBER BALLOON METHOD.
   1.7. ASTM D 4253/4254 – STANDARD METHOD OF TEST FOR RELATIVE DENSITY OF COHESIONLESS SOILS.
2. CARE SHALL BE USED WHEN OPERATING MECHANICAL EQUIPMENT IN LOCATIONS WHERE IT MAY CAUSE DAMAGE TO TREES, BUILDINGS, CULVERTS, OR OTHER EXISTING PROPERTY, UTILITIES, OR STRUCTURES ABOVE OR BELOW GROUND.
3. PROVIDE SHORING, BARRIERS, LIGHTING, WARNING SIGNS, AND RAILINGS AS REQUIRED BY LAW OR REGULATIONS FOR THE PROTECTION OF EMPLOYEES, THE PUBLIC, AND ADJACENT PROPERTY.
4. PROPERLY BARRICADE AND PROTECT AND MAINTAIN ANY OPEN TRENCH OR EXCAVATION TO PREVENT ACCIDENTAL OR UNAUTHORIZED ENTRANCE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND PLUMBING, DRAINAGE, OR ELECTRICAL UTILITY LINES.
   5.1. WHERE CERTAIN ON-SITE UTILITIES ARE INDICATED TO REMAIN, PROTECT AND MAINTAIN SUCH LINE, AND BE RESPONSIBLE FOR ALL DAMAGE UNTIL COMPLETION OF WORK.
   5.2. COOPERATE WITH UTILITY COMPANIES TO MAINTAIN EXISTING UTILITY LINES IN CONTINUOUS OPERATION.
   5.3. WHERE UNMARKED UTILITIES ARE UNCOVERED WITHIN THE WORK AREA, NOTIFY MURPHY OIL USA, INC. AND THE UTILITIES HAVING JURISDICTION, AND TAKE PRECAUTIONS TO PREVENT INTERRUPTION OF SERVICE.
      5.3.1. SHOULD SUCH LINES OR SERVICES BE DAMAGED, BROKEN OR INTERRUPTED THROUGH NEGLIGENCE, REPAIR AND RESTORE IMMEDIATELY WITHOUT ADDITIONAL COST TO UTILITY OR TO MURPHY OIL USA, INC.
6. CLOSE OPEN ENDS OF ABANDONED UNDERGROUND UTILITIES WHICH ARE INDICATED TO REMAIN IN PLACE. FOLLOW PROCEDURES ESTABLISHED BY THE UTILITY COMPANY HAVING JURISDICTION.

B. GRADING
1. REMOVE ALL DEBRIS FROM AREAS TO BE LANDSCAPED TO A DEPTH OF TWO FEET.
   1.1. BACKFILL WITH CLEAN SOIL TO A DEPTH WITHIN SIX INCHES OF THE FINISHED GRADE.
   1.2. BACKFILL TO SIX INCHES BELOW TOP OF EXISTING GRADES.
2. UNIFORMLY COMPACT BACKFILL AND GRADE AREAS TO INDICATED SLOPE WITH A TOLERANCE OF ½ INCH ABOVE OR BELOW INDICATED ELEVATIONS.
3. PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION.
4. REPAIR, RE-GRADED, AND RE-COMPACT GRADES IN SETTLED, ERODED, AND RUTTED AREAS TO SPECIFIED TOLERANCES.
5. LANDSCAPING WORK INCLUDING BACKFILLING LANDSCAPED AREAS TO GRADE WITH SIX INCHES OF TOPSOIL.

C. EXCAVATING
1. EXCAVATION OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH OSHA GUIDELINES AND ALL APPLICABLE STATE AND LOCAL ORDINANCES.
2. EXCAVATE SUBSOIL REQUIRED FOR FOUNDATIONS, CONSTRUCTION OPERATIONS, AND OTHER WORK.
3. EXCAVATE FOUNDATIONS TO A DEPTH INDICATED ON THE DRAWINGS OR AS DEEP AS REQUIRED TO ATTAIN PROPER SOIL BEARING PRESSURE, OR MEET GOVERNING CODES.
4. DEEPER FOUNDATIONS WILL BE APPROVED, IN WRITING, BY MURPHY OIL USA, INC.
5. MACHINE SLOPE BANKS TO ANGLE OF REPOSE OR LESS UNTIL SHORED, AS REQUIRED BY ALL CURRENT OSHA STANDARDS.
6. DO NOT ALLOW EXCAVATION TO INTERFERE WITH NORMAL 45 DEGREE BEARING SPLAY OF ANY FOUNDATION.
7. HAND TRIM EXCAVATION AND LEAVE FREE OF LOOSE MATTER.
8. EXCAVATED MATERIAL SHALL BE FIELD-SCREENED BY THE ENGINEER USING AMBIENT TEMPERATURE HEADSPACE ANALYSIS (ATHA) METHODS TO SEGREGATE POTENTIALLY CONTAMINATED SOILS FROM UNCONTAMINATED SOILS.
   8.1. EXCAVATED MATERIALS WITH OBSERVED PHOTO IONIZATION DETECTOR (PIP) READINGS GREATER THAN 20 PARTS PER MILLION (PPM) DURING THE SCREENING WILL BE CONSIDERED POTENTIALLY CONTAMINATED AND SHALL BE PLACED ON A BERMED, IMPERMEABLE LINER OF MINIMUM 6-MIL VISQUEEN AT A LOCATION DESIGNATED BY THE ENGINEER.
      8.1.1. THE ENGINEER WILL COORDINATE APPROVAL FOR DISPOSAL OF THE SOIL TRANSPORTATION OF CONTAMINATED SOIL TO AN APPROVED DISPOSAL SITE WILL BE PERFORMED BY THE CONTRACTOR UNDER THIS CONTRACT.
   8.2. THE ENGINEER MAY COLLECT SAMPLES OF EXCAVATED MATERIAL FOR FIELD OR LABORATORY ANALYSES FOR THE PURPOSE OF VERIFYING CONTAMINANT CONCENTRATIONS.
      8.2.1. THE CONTRACTOR SHALL PROVIDE SAMPLES OF EXCAVATED MATERIAL TO THE ENGINEER, AS REQUESTED.
   8.3. EXCAVATED MATERIAL WITH OBSERVED PIP READINGS LESS THAT 20 PPM DURING ATHA TESTING WILL BE CONSIDERED UNCONTAMINATED AND SHALL BE TEMPORARILY STOCKPILED ON SITE IN A LOCATION WHICH WILL NOT INTERFERE WITH TRAFFIC OR DAILY BUSINESS OPERATIONS.
      8.3.1. UNCONTAMINATED MATERIAL WILL NOT BE USED AS BACKFILL IF THE ENGINEER DETERMINES THAT EXCAVATED UNCONTAMINATED MATERIALS IS UNSUITABLE FOR USE AS BACKFILL.
         8.3.1.1. THE EXCAVATED MATERIAL WILL BE TRANSPORTED OFF SITE BY THE CONTRACTOR FOR RE-USE OR DISPOSAL.
9. REPLACE ALL UNSATISFACTORY SOIL MATERIALS WITH AN ENGINEERED FILL CONSISTING OF ORDINARY SOIL AS EXCAVATED ON THE SITE, FREE FROM DEBRIS ROOTS, STONES LARGER THAN TWO INCHES, SILT, MUCK OR PEAT CAPABLE OF BEING COMPACTED TO THE DENSITIES SPECIFIED IN BACKFILL.
   9.1. INSTALL FILL MATERIAL IN LAYERS NOT EXCEEDING 12 INCHES AND MOISTENED ONLY AS REQUIRED TO OBTAIN THE SPECIFIED DEGREE OF COMPACTING.
10. CORRECT UNAUTHORIZED OVER-EXCAVATION AT NO COST TO THE OWNER.
11. STOCKPILE SUFFICIENT CLEAN APPROVED SOIL MATERIALS FOR ALL BACKFILLING OR GRADING WORK.
   11.1. STOCKPILE EXCAVATED MATERIAL IN AREA DESIGNATED ON-SITE OR WHERE DIRECTED AND REMOVE EXCESS SUBSOIL, NOT BEING REUSED, FROM SITE.
   11.2. DO NOT USE UNTREATED OR STABILIZED TOPSOIL AS COMPACTED SUB-GRADE MATERIAL UNDER PAVING OR FOUNDATION STRUCTURES UNLESS SPECIFICALLY APPROVED BY MURPHY OIL USA, INC.
12. IN THE EVENT THAT SOLID ROCK OR OTHER UNEXPECTED MATERIALS OVER ONE CUBIC YARD IN VOLUME ARE ENCOUNTERED, EXTRA COST WILL BE ALLOWED AFTER WRITTEN APPROVAL BY MURPHY OIL USA, INC. EXTRA COST WILL FOLLOW UNIT PRICES QUOTED IN THE CONTRACTOR'S BID, WITH QUANTITIES TO BE APPROVED BY MURPHY OIL USA, INC.

EARTHWORK (CONTINUED)

C. EXCAVATING (CONTINUED)
13. FILL OVER-EXCAVATED AREAS UNDER STRUCTURE BEARING SURFACES BY EXTENDING INDICATED BOTTOM ELEVATION OF FOOTING OR BASE TO EXCAVATION BOTTOM WITHOUT CHANGING TOP ELEVATION OR BY FILLING UNAUTHORIZED EXCAVATION WITH 3000 PSI CONCRETE.
14. TRENCHING
   14.1. COMPLY WITH OSHA AND OTHER LOCAL REGULATIONS FOR TRENCHING REQUIREMENTS.
   14.2. CONFORM EXCAVATIONS FOR PIPING TO LIMITS, DEPTHS, AND MATERIALS INDICATED ON THE DRAWINGS, AND TO APPLICABLE CODES AND REGULATIONS.
15. MECHANICAL EQUIPMENT SHALL BE DESIGNED AND OPERATED IN SUCH A MANNER THAT THE BOTTOM ELEVATION OF THE TRENCH CAN BE CONTROLLED WITH UNIFORM TRENCH WIDTHS AND VERTICAL SIDEWALLS WHICH EXTEND FROM THE BOTTOM OF THE TRENCH TO AN ELEVATION 1 FOOT ABOVE THE TOP OF THE INSTALLED PIPE.
16. TRENCHES SHALL BE EXCAVATED BY HAND IN LOCATION WHERE UNDERGROUND UTILITIES ARE KNOWN OR SUSPECTED.
17. DESIGN AND PROVIDE SHEETING, SHORING, OR BRACING AT ANY OPEN TRENCH.
18. EXCAVATE SUBSOIL REQUIRED TO INSTALL UNDERGROUND PIPING AND UTILITIES.
19. TRENCHES SHALL BE EXCAVATED BY OPEN-CUT METHODS, EXCEPT WHEN BORING OR TUNNELING IS INDICATED ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
20. TRENCHES SHALL BE EXCAVATED TO A WIDTH NECESSARY TO PROVIDE A 1-PIPE DIAMETER MINIMUM WORKING SPACE BETWEEN THE PIPE AND THE TRENCH WALLS FOR PROPER PIPE INSTALLATION, JOINING, AND BEDDING.
21. TRENCH WIDTH SHALL BE MAINTAINED TO WITHIN THREE (3) INCHES OF THAT SPECIFIED ON PLANS.
   21.1. TRENCH ALIGNMENT SHALL BE SUFFICIENTLY ACCURATE TO PERMIT PIPE TO BE ALIGNED PROPERLY WITH A 6-INCH MINIMUM CLEARANCE BETWEEN THE PIPE AND THE SIDEWALLS OF THE TRENCH.
      21.1.1. THE TRENCH SIDEWALL SHALL NOT BE UNDERCUT IN ORDER TO OBTAIN CLEARANCE.
22. CONTRACTOR SHALL OVER-EXCAVATE A MINIMUM OF SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE WHEREVER THE TRENCH BOTTOM IS CONSIDERED TO BE BEDROCK OR OTHER UNSUITABLE MATERIAL.
23. WHERE INSTALLING PIPE OR CONDUIT, EXCAVATE OR REMOVE ROCK TO SIX INCHES BELOW THE REQUIRED ELEVATION.
   23.1. BACKFILL WITH CRUSHED STONE OR GRAVEL.
   23.2. HAND TRIM FOR BELL AND SPIGOT PIPE JOINTS.
   23.3. SUPPORT PIPE DURING PLACEMENT.
24. BACKFILL SYSTEMATICALLY, AS EARLY AS POSSIBLE, TO ALLOW MAXIMUM TIME FOR NATURAL SETTLEMENT.
25. DO NOT BACKFILL TRENCHES UNTIL TESTING THAT IS REQUIRED BY APPLICABLE CODES HAS BEEN CONDUCTED AND APPROVED.
26. STOCKPILING EXCAVATED MATERIALS
   26.1. SUITABLE MATERIAL FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER, AND A MINIMUM OF TWO (2) FEET FROM THE EDGE OF THE TRENCH.
   26.2. EXCESS EXCAVATED MATERIALS NOT SUITABLE OR NOT REQUIRED FOR BACKFILLING SHALL BE REMOVED AND DISPOSE OF OFFSITE BY THE CONTRACTOR.
   26.3. EXCAVATED MATERIAL SHALL NOT BE STOCKPILED AGAINST EXISTING STRUCTURES OR APPURTENANCES.
27. PREPARATION OF TRENCH BOTTOM
   27.1. TRENCH BOTTOMS SHALL BE GRADED UNIFORMLY TO PROVIDE CLEARANCE FOR EACH SECTION OF PIPE.
   27.2. LOOSE MATERIAL, WATER, AND FOREIGN OBJECTS SHALL BE REMOVED FROM THE TRENCH.
   27.3. THE CONTRACTOR SHALL PROVIDE A FIRM SUB GRADE, WHICH IS SUITABLE FOR APPLICATION OF BEDDING MATERIAL.
   27.4. WHEREVER UNSTABLE MATERIAL IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SAID MATERIAL SHALL BE OVER-EXCAVATED TO A DEPTH SUITABLE FOR CONSTRUCTION OF A STABLE SUB-GRADE.
      27.4.1. THE DEPTH SUITABLE FOR CONSTRUCTION OF A STABLE SUB GRADE SHALL BE DETERMINED BY THE ENGINEER.
      27.4.2. THE OVER-EXCAVATION SHALL BE BACKFILLED WITH STABILIZATION MATERIAL AND COMPACTED AS REQUIRED BY THE ENGINEER.

D. DEWATERING
1. PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
2. AT NO TIME WILL PERSONNEL BE ALLOWED IN THE TRENCH UNLESS SUCH ENTRY COMPLIES WITH OSHA GUIDELINES AND WITH APPLICABLE STATE AND LOCAL REGULATIONS.
3. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS.
4. ANY WATER SUSPECTED OF BEING CONTAMINATED IS TO BE BROUGHT TO THE ATTENTION OF MURPHY OIL USA, INC.
5. REMOVE WATER TO PREVENT SOIL CHANGES DETRIMENTAL TO THE STABILITY OF SUB-GRADES.
6. PROVIDE AND MAINTAIN PUMPS, WELL POINTS, SUMPS, SUCTION AND DISCHARGE LINE, AND OTHER DEWATERING SYSTEM COMPONENTS NECESSARY TO CONVEY WATER AWAY FROM EXCAVATIONS.
7. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS TO CONVEY RAIN WATER AND REMOVED FROM EXCAVATIONS TO COLLECTION OR RUN-OFF AREAS.
8. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.
9. MAINTAIN WATER ON SITE, IF REQUIRED BY THE LOCAL AUTHORITY.
10. TRENCHING
   10.1. ALTHOUGH IT IS NOT ANTICIPATED THAT PIPING TRENCHES WILL BE EXCAVATED BELOW THE WATER TABLE, ALL TRENCHES SHOULD BE KEPT FREE FROM EXCESS GROUNDWATER DURING CONSTRUCTION.
   10.2. ANY WATER WHICH IS ENCOUNTERED IN THE TRENCH SHALL BE REMOVED TO THE EXTENT NECESSARY TO PROVIDE A FIRM SUB GRADE, TO PERMIT JOINTS TO BE MADE IN THE PRY, AND TO PREVENT THE ENTRANCE OF WATER INTO THE PIPELINE.
   10.3. SURFACE RUNOFF SHALL BE DIVERTED TO KEEP TRENCHES FREE FROM WATER, AS NECESSARY.
   10.4. WATER SHALL NOT BE DISCHARGED FROM A TRENCH WITHOUT THE APPROVAL OF THE ENGINEER.
   10.5. WATER SHALL BE PUMPED FROM THE TRENCH TO A HOLDING TANK FOR FUTURE TREATMENT, IF NECESSARY.
   10.6. THE CONTRACTOR SHALL TREAT THE DISCHARGED WATER TO REMOVE VOLATILE CONTAMINANTS TO CONCENTRATIONS WITHIN LIMITS PRESCRIBED BY REGULATORY AUTHORITIES PRIOR TO DISPOSAL OF THE WATER.
   10.7. THE CONTRACTOR MUST DISCHARGE TREATED WATER IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND ORDINANCES IN A MANNER WHICH PREVENTS DAMAGE TO PERSONAL PROPERTY.
   10.8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO HIS INTENT TO DISCHARGE WATER.
   10.9. WATER SAMPLES MAY BE COLLECTED BY THE ENGINEER TO VERIFY CONTAMINANT CONCENTRATIONS.
   10.10. THE CONTRACTOR SHALL PROVIDE DISCHARGE SAMPLES TO THE ENGINEER AS REQUESTED.
   10.11. THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND COMPLYING WITH ALL PERMITS AS REQUIRED BY 10.6) ABOVE.

EARTHWORK (CONTINUED)

E. BACKFILL
1. BEFORE COMPACTING, MOISTEN OR AERATE EACH LAYER OF BACKFILL AS REQUIRED TO OBTAIN OPTIMUM MOISTURE CONTENT TO ATTAIN REQUIRED COMPACT DENSITY.
   1.1. CINDERS, ASHES, ORGANIC MATTER, RUBBISH, OR OTHER DELETERIOUS MATERIALS WILL NOT BE PERMITTED.
   1.2. PLACE FILL IN LAYERS NOT MORE THAN EIGHT INCHES IN LOOSE DEPTH.
2. ROLL AREAS WITH SOILS CONTAINING CLAY OR SILT (COHESIVE SOILS) UNDER PAVING AND BUILDINGS WITH A SHEEP'S FOOT ROLLER.
   2.1. COMPACT FILL WITH COHESIVE MATERIALS TO A DENSITY EQUAL TO 95 PERCENT OF RELATIVE DENSITY AS DETERMINED BY ASTM D 698.
   2.2. DETERMINE FIELD DENSITY FOR COHESIVE SOILS BY THE SAND CONE METHOD FOLLOWING ASTM D 1556.
3. ROLL AREAS WITH SOILS CONTAINING SAND AND GRAVEL (COHESION-LESS SOILS) UNDER PAVING AND BUILDINGS WITH EITHER A THREE WHEEL TEN TON VIBRATOR ROLLER OR SEVEN TON TRACTOR.
   3.1. COMPACT FILL WITH COHESION-LESS SOILS TO A DENSITY EQUAL TO 65 PERCENT OF RELATIVE DENSITY AS DETERMINED BY ASTM D 4254.
   3.2. DETERMINE FIELD DENSITY FOR COHESION-LESS SOILS BY THE RUBBER BALLOON METHOD FOLLOWING ASTM D 2167.
4. THE OWNER MAY EMPLOY AND PAY FOR AN INDEPENDENT TESTING LABORATORY TO PERFORM ANY TEST OR INSPECTION TO SHOW COMPLIANCE WITH THESE SPECIFICATIONS.
5. IF TESTS INDICATE WORK DOES NOT MEET SPECIFIED REQUIREMENTS, REMOVE WORK, REPLACE, AND RETEST WITHOUT ADDITIONAL COST TO THE OWNER.
6. BACKFILL FOR UNDERGROUND STORAGE TANKS IS SPECIFIED ON THE TANK INSTALLATION DRAWING.
7. TRENCHING
   7.1. BACKFILLING WITH SAND OR PEA GRAVEL TO A DEPTH OF FOUR INCHES ABOVE THE TOP OF THE CONDUIT.
      7.1.1. DO NOT USE SAND IN CONJUNCTION WITH FILTER FABRIC.
      7.1.2. VOIDS BETWEEN CONDUITS WILL NOT BE PERMITTED.
      7.1.3. CLEAN EARTH MAY BE SUBSTITUTED FOR SAND WHEN THE TRENCH CONTAINS ONLY ONE CONDUIT.
   7.2. COMPRESSED AIR AND POTABLE WATER PIPING
      7.2.1. LAY PIPING ON A FOUR INCH COMPACTED BEDDING OF CLEAN SAND OR PEA GRAVEL.
      7.2.2. CONTINUE SAND BACKFILL TO A DEPTH OF FOUR INCHES ABOVE THE TOP OF THE PIPE.
   7.3. SEWER PIPING
      7.3.1. LAY SEWER PIPING SUPPORTED CONTINUOUSLY ON A SIX INCH COMPACTED BEDDING OF GRAVEL OR CRUSHED STONE OF WHICH 100 PERCENT WILL PASS THROUGH A ¾ INCH SIEVE.
      7.3.2. SHAPE BEDDING FOR CLEARANCE OF ALL JOINTS AND FITTINGS, TAMPED IN PLACE, AND GRADED EVENLY TO ENSURE A UNIFORM BEARING FOR THE FULL LENGTH OF THE PIPE.
      7.3.3. DO NOT SUPPORT PIPING BY BLOCKS, PLANKS, OR MOUNDS OF BEDDING MATERIAL.
   7.4. BACKFILL ONLY AFTER PIPING AND APPURTENANCES HAVE BEEN INSPECTED, TESTED, AND APPROVED.
      7.4.1. PROVIDE GRANULAR BACKFILL MATERIAL FREE OF STONES LARGER THAN THREE INCHES IN DIAMETER, NON-CORROSIVE, AND NON-ORGANIC IN NATURE.
      7.4.2. DO NOT USE MATERIAL WITH CINDERS, BUILDING MATERIALS, WASTE, OR RUBBISH.
      7.4.3. DO NOT USE FROZEN OR SEMI-FROZEN BACKFILL MATERIALS.
      7.4.4. BACKFILL AROUND PIPE TO A DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE IN LAYERS.
      7.4.5. USE GRAVEL OR CRUSHED STONE OF WHICH 100 PERCENT WILL PASS THROUGH A ½ INCH SIEVE.
      7.4.6. INSTALL IN LAYERS NOT TO EXCEED SIX INCHES IN DEPTH.
      7.4.7. TAKE CARE NOT TO DISTURB THE PIPE OR DAMAGE ANY PIPE COATING.

SHEET NO. C-13

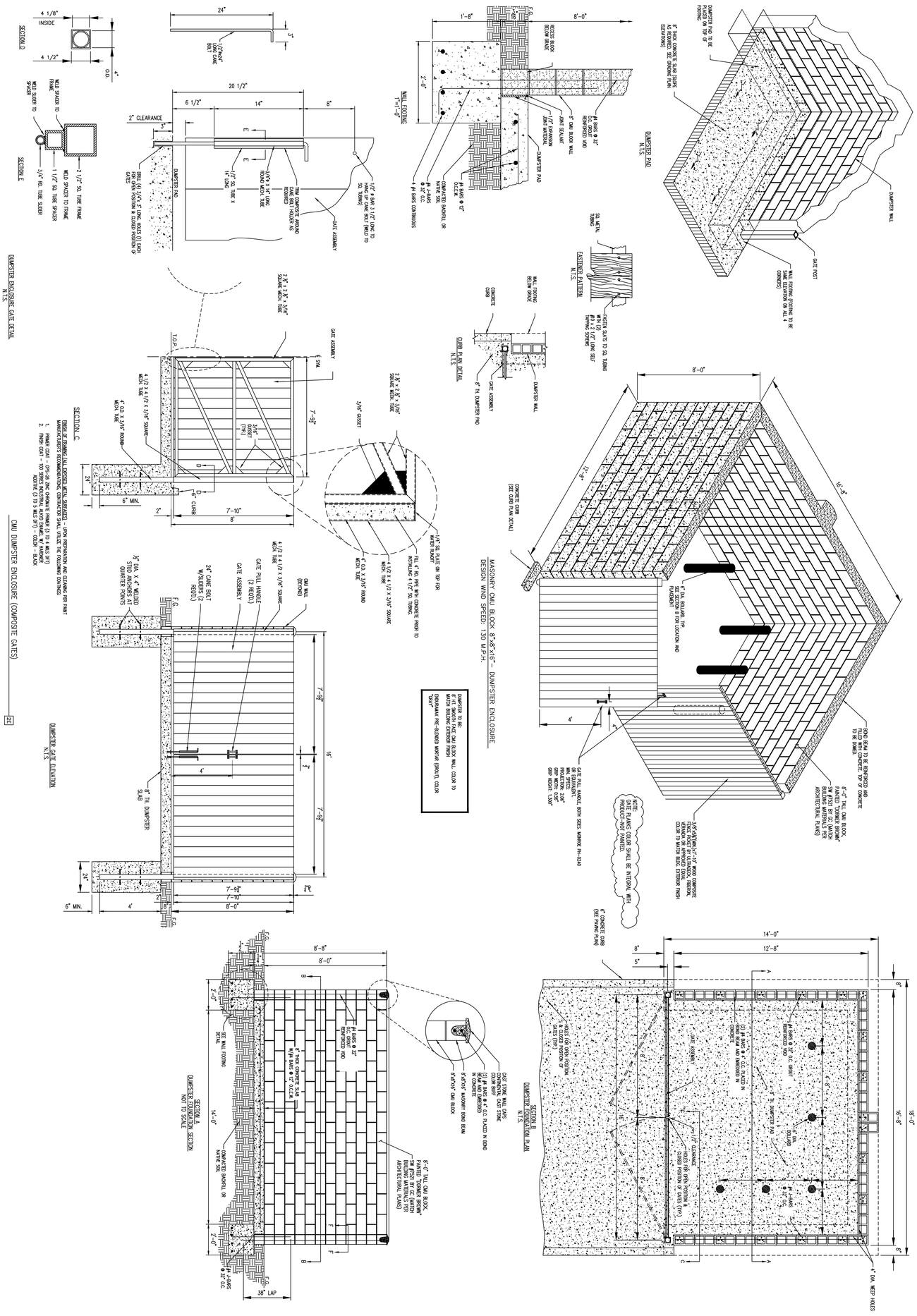
COLORADO LICENSED
MICHAEL E. MAY
58388
PROFESSIONAL ENGINEER
09/03/2021

OTB	JES	KML	KML
08/05/2021	PM	DES	DRW
DATE	---	---	
	PRN		

EARTHWORK SPECIFICATIONS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730



MURPHY OIL USA, INC.

MURPHY USA

200 PEACH STREET
EL DORADO, AR 71730

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

OTB	08/05/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

DUMPSTER DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

COLORADO REGISTERED PROFESSIONAL ENGINEER
MICHAEL E. MAY
58598

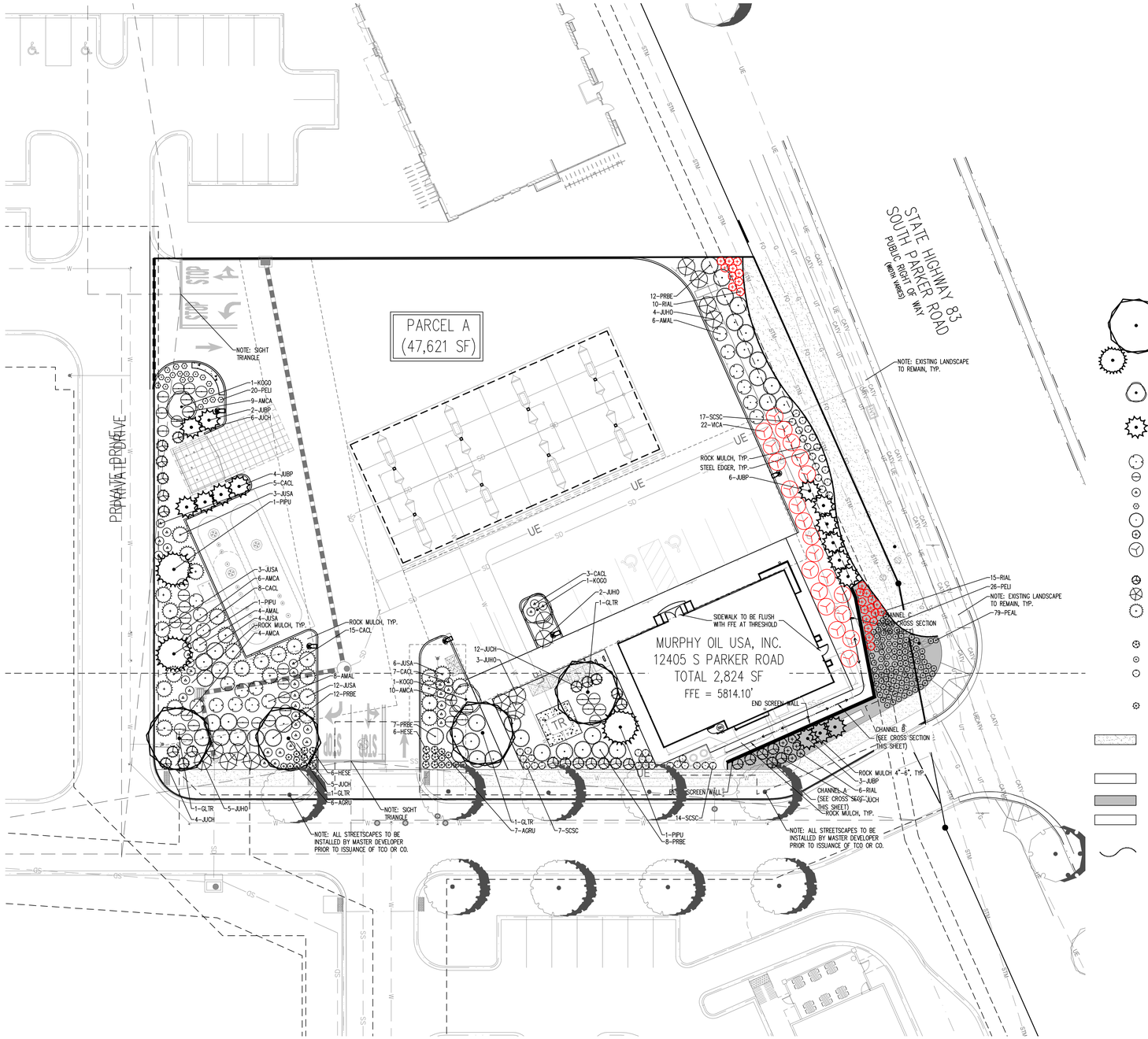
SHEET NO.
C-14

PARKER AND PINE FILING NO. 1 LOT 2 – SITE PLAN

MURPHY OIL USA, INC.

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

SITE PLAN DOCUMENTS



LANDSCAPE CALCULATIONS

AREAS OF REQUIRED LANDSCAPING	AREA	FORMULA	TOTAL QUANTITY REQUIRED	TOTAL QUANTITY PROVIDED
TOTAL REQUIRED LANDSCAPE AREA	47,621 SF	15% MIN. OF TOTAL SITE AREA (7,143 SF TOTAL SITE)	7,143 SF REQUIRED	16,839 SF PROVIDED 30.6% OF TOTAL SITE AREA
SITE PERIMETER LANDSCAPING		1 TREE AND 5 SHRUBS FOR EACH 40 LINEAL FEET OF EDGE		
WEST PERIMETER	173' LF	1 TREE AND 5 SHRUBS FOR EACH 40 LINEAL FEET OF EDGE	4 TREES 22 SHRUBS	4 TREES / 22 SHRUBS
SOUTH PERIMETER	218' LF	1 TREE AND 5 SHRUBS FOR EACH 40 LINEAL FEET OF EDGE	5 TREES 27 SHRUBS	5 TREES / 27 SHRUBS
EAST PERIMETER	176' LF	1 TREE AND 5 SHRUBS FOR EACH 40 LINEAL FEET OF EDGE	4 TREES 22 SHRUBS	*0 TREES / 69 SHRUBS
SOD COVERAGE	16,839 SF	15% MAXIMUM TURF COVERAGE	2,525 SF MAX	2,490 SF (14.7%)
GROUND COVERAGE	16,839 SF	75% LIVING GROUND COVERAGE AT MATURITY	12,629 SF	12,946 SF (77%)

NOTE: TEN SHRUBS MAY BE SUBSTITUTED FOR ONE TREE. ONE ORNAMENTAL GRASS IN A FIVE-GALLON CONTAINER OR THREE ORNAMENTAL GRASSES IN A ONE-GALLON CONTAINTER MAY BE SUBSTITUTED FOR ONE SHRUB. ANY AND ALL SUBSTITUTIONS MUST BE APPROVED BY THE TOWN PRIOR TO INSTALLATION.

NOTE: STREETSCAPE LANDSCAPING BY MDP.

NOTE: SITE PERIMETER LANDSCAPE AND PARKING LOT PERIMETER LANDSCAPING OVERLAP; THEREFORE, THE STRICTER OF THE TWO IS BEING USED PER SECTION 13.06.070.(C) BEING SITE PERIMETER LANDSCAPING.

NOTE: (SUBSTITUTIONS SHOWN IN RED) EAST PERIMETER LANDSCAPE TREES ARE BEING SUBSTITUTED FOR AN ADDITIONAL 40 LARGE SHRUBS PER THE APPROVED PARKER PLANT LIST ON TOP OF THE 22 REQUIRED SHRUBS TO MEET THE TREE REQUIREMENT. MULTIPLE UTILITY CONFLICTS EXIST BETWEEN EXISTING UTILITIES AND EASEMENTS.

PLANTING LEGEND

QTY	LEGEND ABBREV.	BOTANIC NAME	COMMON NAME	PLANTING SIZE (MINIMUM)	MATURE SIZE	WATER USE (VL,L,M,H)	SUN/SHADE	PERCENT TREE SPECIES	PERCENT GROUND COVER IN S.F.
DECIDUOUS TREES									
4	GLTR	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2.5" CAL. B&B	50'X35'	L	SUN	70%	
EVERGREEN TREES									
3	PIPU	PICEA PUNGENS 'BAKERI'	BAKERI SPRUCE	8' HEIGHT B&B	30'X10'	M	SUN	30%	340
ORNAMENTAL TREES									
3	KOGO	KOELREUTERIA PANICULATA	GOLDENRAIN TREE	1.5" CAL. B&B	30'X25'	L	SUN	70%	1,470
UPRIGHT JUNIPERS									
15	JUBP	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	#5 CONT. 3' HEIGHT	12'X8'	VL	SUN/PART SHADE		540
DECIDUOUS SHRUBS									
18	AMAL	AMELANCHIER ALNIFOLIA 'REGENT'	REGENT SERVICEBERRY	#5 CONT. 18-24"	6'X5'	VL	SUN		504
36	AMCA	AMORPHA CANESCENS	LEADPLANT	#5 CONT. 18-24"	4'X4'	VL	SUN		468
33	CACL	CARYOPTERIS X CLANDONENSIS	BLUE MIST SPIREA	#5 CONT. 18-24"	3'X3'	VL	SUN		231
46	PELI	PEROVSKIA X 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	#5 CONT. 18-24"	2'X2'	L	SUN		104
39	PRBE	PRUNUS BESSEYI 'PAWNEE BUTTES'	PAWNEE BUTTES SAND CHERRY	#5 CONT. 18-24"	18"X8'	VL	SUN		1,404
31	RIAL	RIBES ALPINUM	GREEN MOUND ALPINE CURRANT	#5 CONT. 18-24"	4'X4'	L/M	SUN/PART SHADE		400
22	VICA	VIBURNUM LANTANA 'MOHICAN'	MOHICAN VIBURNUM	#5 CONT. 18-24"	6'X6'	M	SUN		720
EVERGREEN SHRUBS									
28	JUCH	JUNIPERUS CHINENSIS 'ARMSTRONGII'	ARMSTRONG JUNIPER	#5 CONT. 18-24"	4'X6'	VL	SUN		798
14	JUHO	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER	#5 CONT. 18-24"	10"X8'	VL	SUN/PART SHADE		604
28	JUSA	JUNIPERUS SABINA 'BUFFALO'	BUFFALO JUNIPER	#5 CONT. 18-24"	12"X8'	VL	SUN/PART SHADE		1,764
ORNAMENTAL GRASSES									
12	HESE	HELICTOTRICHON SEMPERVIRENS	BLUE AVENA	#3 CONT.	2.5'X2.5'	VL	SUN/PART SHADE		276
79	PEAL	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	#5 CONT.	2'X2'	M	SUN		416
38	SCSC	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	#3 CONT.	3'X2'	VL	SUN		152
PERENNIALS									
13	AGRU	AGASTACHE RUPESTRIS 'SUNSET'	SUNSET HYSSOP	#1 CONT.	30"X24"	VL	SUN		265
SOD - IRRIGATED TURF									
2,490 S.F.		FESCUE SOD	RTF (RHIZOMATOUS TALL FESCUE)	SOD		M			2,490
MULCH									
10,050 S.F.		ROCK COBBLE MULCH	2"-4" ROCK COBBLE MULCH WITH WOOD MULCH RING AROUND ALL PLANT MATERIAL, SEE PLANTING NOTES & DETAILS	MULCH					
1,175 S.F.		ROCK COBBLE MULCH	4"-6" ROCK COBBLE MULCH WITH WOOD MULCH RING AROUND ALL PLANT MATERIAL, SEE PLANTING NOTES & DETAILS	MULCH					
AS NEEDED		WOOD MULCH	NATURAL CEDAR FIBER MULCH	MULCH					
EDGING									
175 L.F.		STEEL EDGING	BLACK STEEL EDGING, SEE LANDSCAPE NOTES	EDGING					
TOTAL GROUND COVERAGE									
		TOTAL LS AREA = 16,839 S.F.	75% GROUND COVERAGE = 12,629 S.F.					TOTAL=	12,946

N

0 10 20

SCALE: 1"=20'

CAUTION
UTILITIES EXIST WITHIN CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THEIR LOCATION PRIOR TO CONSTRUCTION.

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

SHEET NO. L1.1

TROY NOSER 1360
02/12/2019
Original Date of Licensure
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT
08/25/2021

DATE	BY	DES	DRW
08/04/2021	PRN	PM	EDN
---	JES	EDN	EDN
OTB			

LANDSCAPE PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

PARKER AND PINE FILING NO. 1 LOT 2 – SITE PLAN

MURPHY OIL USA, INC.

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

SITE PLAN DOCUMENTS

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

PLANTING NOTES

GENERAL

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES, STANDARDS, AND SPECIFICATIONS.
2. LANDSCAPE DESIGN IS DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN TAKEOFFS AND QUANTITY CALCULATIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE LANDSCAPE LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN SHALL TAKE PRECEDENCE AND NOTIFY THE LANDSCAPE ARCHITECT OF THESE DISCREPANCIES. MINOR ADJUSTMENTS TO THE LANDSCAPE MATERIAL AND LOCATIONS MAY BE PROPOSED FOR CITY CONSIDERATION AT THE CONSTRUCTION DOCUMENT STAGE TO RESPOND TO MARKET AND FIELD CONDITIONS. HOWEVER, THERE SHALL BE NO REDUCTION IN THE NUMBER AND SIZE OF MATERIALS.
3. CONTRACTOR SHALL MAKE HIMSELF AWARE OF THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE UTILITIES AND/OR ANY INJURY TO ANY PERSON. THIS DRAWING IS PART OF A COMPLETE SET OF CONTRACT DOCUMENTS. UNDER NO CIRCUMSTANCES SHOULD THIS PLAN BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE AND REVIEW ALL RELATED PLANS AND DOCUMENTS.
4. ALL UTILITY EASEMENTS SHALL REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR MAINTENANCE EQUIPMENT.
5. THE CONTRACTOR SHALL TAKE EXTREME CARE NOT TO DAMAGE ANY EXISTING PLANTS INDICATED AS "TO REMAIN". ANY SUCH PLANTS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH THE SAME SPECIES, SIZE, AND QUANTITY AT THE CONTRACTOR'S OWN EXPENSE, AND AS ACCEPTABLE TO THE OWNER. REFER TO THE TREE PROTECTION NOTES ON THE PLANS (AS APPLICABLE).
6. LANDSCAPE CONTRACTOR SHALL EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE GENERAL CONTRACTOR IN WRITING OF UNSATISFACTORY CONDITIONS. IF SITE CONDITIONS OR PLANT AVAILABILITY REQUIRE CHANGES TO THE PLAN, THEN AN APPROVAL WILL BE OBTAINED FROM THE CITY. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
7. ALL CONSTRUCTION DEBRIS AND MATERIAL SHALL BE REMOVED AND CLEANED OUT PRIOR TO INSTALLATION OF TOPSOIL, TREES, SHRUBS, AND TURF.
8. FOR ALL INFORMATION ON SURFACE MATERIAL OF WALKS, DRIVES, AND PARKING LOTS, SEE THE SITE PLAN. SEE PHOTOMETRIC PLAN FOR FREE STANDING LIGHTING INFORMATION.
9. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
10. WINTER WATERING SHALL BE AT THE EXPENSE OF THE CONTRACTOR UNTIL SUCH TIME AS FINAL ACCEPTANCE IS RECEIVED.
11. ALL LANDSCAPE CONSTRUCTION PRACTICES, WORKMANSHIP, AND ETHICS SHALL, BE IN ACCORDANCE WITH INDUSTRY STANDARDS SET FORTH IN THE CONTRACTORS HANDBOOK PUBLISHED BY THE COLORADO LANDSCAPE CONTRACTORS ASSOCIATION.
12. LANDSCAPE AND IRRIGATION WORK SHALL BE COMPLETED PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY.

FINISH GRADING AND SOIL PREPARATION

13. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN FINISH GRADES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GEOTECHNICAL REPORT, THE GRADING PLANS, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER.
14. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, IT IS RECOMMENDED THAT THE CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FOR THE FOLLOWING: GENERAL SOIL FERTILITY, PH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT. EACH SAMPLE SUBMITTED SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL. CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): GENERAL SOIL PREPARATION AND BACKFILL MIXES, PRE-PLANT FERTILIZER APPLICATIONS, AND ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
15. THE CONTRACTOR SHALL RECOMMEND INSTALLATION OF SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT FOR THE THE OWNER/OWNER'S REPRESENTATIVE CONSIDERATION.
16. AT A MINIMUM, ALL TOPSOIL SHALL BE AMENDED WITH NITROGEN STABILIZED ORGANIC AMENDMENT COMPOST AT A RATE OF 5.0 CUBIC YARDS AND AMMONIUM PHOSPHATE 16-20-0 AT A RATE OF 15 POUNDS PER THOUSAND SQUARE FEET OF LANDSCAPE AREA. COMPOST SHALL BE MECHANICALLY INTEGRATED INTO THE TOP 6" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING. GROUND COVER & PERENNIAL BED AREAS SHALL BE AMENDED AT A RATE OF 8 CUBIC FEET PER THOUSAND SQUARE FEET OF NITROGEN STABILIZED ORGANIC AMENDMENT AND 10 LBS. OF 12-12-12 FERTILIZER PER CU. YD., ROTOTILLED TO A DEPTH OF 8". NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED FOR ORGANIC AMENDMENTS.

PLANTING

17. ALL DECIDUOUS TREES SHALL HAVE FULL, WELL-SHAPED HEADS/ALL EVERGREENS SHALL BE UNSHEARED AND FULL TO THE GROUND; UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
18. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
19. ALL TREES SHALL BE GUYED AND WOOD STAKED AS PER DETAILS. NO "T-STAKES" SHALL BE USED FOR TREES.
20. ALL PLANT MATERIALS SHALL BE TRUE TO TYPE, SIZE, SPECIES, QUALITY, AND FREE OF INJURY, BROKEN ROOT BALLS, PESTS, AND DISEASES, AS WELL AS CONFORM TO THE MINIMUM REQUIREMENTS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK". FOLLOW GREENCO TREE PLANTING RECOMMENDATIONS FOR MINIMUM QUALITY REQUIREMENTS FOR TREES.
21. ALL TREE AND SHRUB BED LOCATIONS ARE TO BE STAKED OUT ON SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
22. ALL TREES PLANTED ADJACENT TO PUBLIC AND/OR PEDESTRIAN WALKWAYS SHALL BE PRUNED CLEAR OF ALL BRANCHES BETWEEN GROUND AND A HEIGHT OF EIGHT (8) FEET FOR THAT PORTION OF THE PLAN LOCATED OVER THE SIDEWALK AND/OR ROAD.
23. ALL PLANT MATERIAL SHALL NOT BE PLANTED PRIOR TO INSTALLATION OF TOPSOIL.
24. ALL PLANT BEDS SHALL BE CONTAINED WITH STEEL EDGER. STEEL EDGER IS NOT REQUIRED ALONG CURBS, WALKS OR BUILDING FOUNDATIONS. ALL EDGING SHALL OVERLAP AT JOINTS A MINIMUM OF 6-INCHES, AND SHALL BE FASTENED WITH A MINIMUM OF 4 PINS PER EACH 10 FOOT SECTION. THE TOP OF ALL EDGING MATERIAL SHALL BE A ROLLED TOP AND 1/2 INCH ABOVE THE FINISHED GRADE OF ADJACENT LAWN OR MULCH AREAS. COLOR: GREEN.
25. THE DEVELOPER, HIS SUCCESSOR, OR ASSIGNEE SHALL BE RESPONSIBLE FOR ESTABLISHING AND CONTINUING A REGULAR PROGRAM OF MAINTENANCE FOR ALL LANDSCAPED AREAS. SEE LANDSCAPE GUARANTEE AND MAINTENANCE NOTE.
26. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ALL FIRE HYDRANTS.
27. LANDSCAPE CONTRACTOR TO SUBMIT SAMPLES OF MISCELLANEOUS LANDSCAPING MATERIALS TO THE LANDSCAPE ARCHITECTS AND OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION, IE.; MULCH, EDGER, LANDSCAPE FABRIC, ETC.

MULCHING

28. AFTER ALL PLANTING IS COMPLETE, THE CONTRACTOR SHALL INSTALL A MINIMUM 4" THICK LAYER OF MULCH AS SPECIFIED IN THE PLANTING LEGEND. INSTALL A 4" THICK RING OF NATURAL CEDAR FIBER MULCH AROUND ALL PLANT MATERIAL IN ROCK MULCH BEDS WHERE LANDSCAPING IS SHOWN ON THE PLANS. WOOD MULCH RING SIZE SHALL BE THE CONTAINER SIZE OF THE SHRUBS, PERENNIALS, AND ORNAMENTAL GRASSES. TREE RING SIZE SHALL BE GREEN INDUSTRIES OF COLORADO INDUSTRY STANDARD WIDTH.
29. ALL MULCH SHALL BE HARVESTED IN A SUSTAINABLE MANNER FROM A LOCAL SOURCE.
30. INSTALL DEWITT PRO-5 WEED BARRIER FABRIC UNDER ALL ROCK MULCH SHRUB BEDS SPECIFIED ON THE PLANS ONLY. NO LANDSCAPE FABRIC SHALL BE USED IN WOOD MULCH AREAS. NO PLASTIC WEED BARRIERS SHALL BE SPECIFIED.
31. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED.
32. ALL PLANTING AREAS WITH LESS THAN A 4:1 GRADIENT SHALL RECEIVE A LAYER OF MULCH, TYPE AND DEPTH PER PLANS. SUBMIT 1 CUBIC FOOT SAMPLE OF MULCH (ONE SAMPLE PER TYPE) TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE MULCH SHALL BE SPREAD EVENLY THROUGHOUT ALL PLANTING AREAS EXCEPT SLOPES 4:1 OR STEEPER, OR AS OTHERWISE DENOTED ON THE PLAN. ABSOLUTELY NO EXPOSED GROUND SHALL REMAIN IN AREAS TO RECEIVE MULCH AFTER MULCH HAS BEEN INSTALLED.
33. ALL PLANTING AREAS ON SLOPES OVER 4:1 SHALL RECEIVE COCONUT FIBER EROSION CONTROL NETTING FROM ROLLS. NETTING SHALL BE #CT-125, AS MANUFACTURED BY NORTH AMERICAN GREEN (OR EQUAL). INSTALL AND STAKE PER MANUFACTURER'S SPECIFICATIONS. SEE ALSO THE CIVIL ENGINEER'S EROSION CONTROL PLAN.

SEED NOTES

1. ALL SEED MIXES AVAILABLE THROUGH:
   WESTERN NATIVE SEED COMPANY
   P.O. BOX 188
   COALDALE, CO 81222
   (719) 942-3935
2. DRYLAND SEED MIXES ARE AVAILABLE AS FOLLOWS:
   50%-"FOOTHILLS GRASS MIX", 50%-"XERISCAPE WILDFLOWER MIX"
3. ALL SEED APPLICATIONS SHALL BE DRILL SEEDED, WITH HYDROSLURRY APPLIED OVER THE SEED BED AFTER SEEDING. THE SLURRY MIX SHALL CONTAIN THE FOLLOWING:

	LBS./1,000 SF
WOOD FIBER MULCH	46
15-15-15 ORGANIC FERTILIZER	9
ORGANIC BINDER	4

SEED ESTABLISHMENT NOTES

1. THE LANDSCAPE CONTRACTOR SHALL SEED ALL NATIVE SEED AREAS AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING OPERATIONS. SOIL PREPARATION MEASURES IN AREAS TO BE SEEDED SHALL BE COMPLETED PRIOR TO SEEDING.
2. FOR PROPER ESTABLISHMENT, SEED SHALL BE INSTALLED WHEN AT LEAST THREE MONTHS REMAIN IN THE GROWING SEASON. IF LESS THAN THREE MONTHS REMAIN IN THE GROWING SEASON AT THE TIME OF SEEDING, THE LANDSCAPE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND OWNER. THE IRRIGATION SYSTEM FOR SEEDED AREAS SHALL BE FULLY OPERATIONAL AT THE TIME OF SEEDING.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADDITIONAL CORRECTIVE MEASURES, AT HIS OWN COST, TO SATISFY ESTABLISHMENT REQUIREMENTS AND ENSURE TIMELY CLOSEOUT. THESE MEASURES MAY INCLUDE, AT THE OWNER'S OPTION, RESEEDING OF SPARSELY GERMINATED AREAS AND/OR INSTALLATION OF SOD IN ALL SEEDED AREAS.

UTILITY NOTES

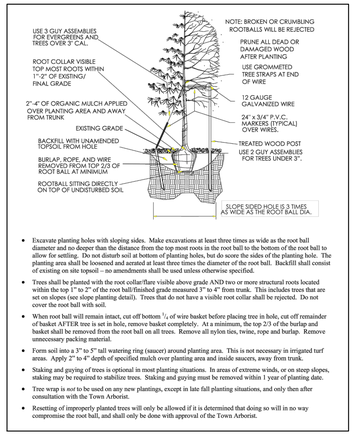
1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCY NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
2. THIS DRAWING IS A PART OF A COMPLETE SET OF BID DOCUMENTS, SPECIFICATIONS, ADDITIONAL DRAWINGS, AND EXHIBITS. UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE, AND REVIEWING ALL RELATED DOCUMENTS.
3. THE LOCATION OF THE ALL UNDERGROUND UTILITIES ARE LOCATED ON THE ENGINEERING DRAWINGS FOR THIS PROJECT. THE MOST CURRENT REVISION IS HERE IN MADE PART OF THIS DOCUMENT. UNDERGROUND UTILITIES EXIST THROUGHOUT THIS SITE AND MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITY. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MAY BE NECESSARY AND MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL, AND UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED WITHOUT REFERENCING THE ABOVE MENTIONED DOCUMENTS.

IRRIGATION CONCEPT

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BY THE TIME OF FINAL INSPECTION. THE ENTIRE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.
2. THE IRRIGATION SYSTEM WILL HAVE APPROPRIATE BACKFLOW PREVENTION DEVICES INSTALLED TO PREVENT CONTAMINATION OF THE WATER SOURCE IF APPLICABLE.
3. ALL NON-TURF/SEED PLANTED AREAS WILL BE DRIP IRRIGATED. TURF SOD/SEED SHALL RECEIVE POP-UP SPRAY IRRIGATION FOR HEAD TO HEAD COVERAGE.
4. ALL PLANTS SHARING SIMILAR HYDROZONE CHARACTERISTICS SHALL BE PLACED ON A VALVE DEDICATED TO PROVIDE THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT HYDROZONE.
5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED, TO THE MAXIMUM EXTENT POSSIBLE, TO CONSERVE WATER BY USING THE FOLLOWING DEVICES AND SYSTEMS: MATCHED PRECIPITATION RATE TECHNOLOGY ON ROTOR AND SPRAY HEADS (WHEREVER POSSIBLE), RAIN SENSORS, AND SMART MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS FEATURING SENSORY INPUT CAPABILITIES.

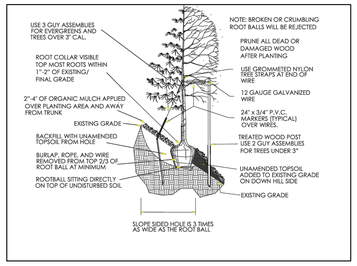
LANDSCAPE GUARANTEE AND MAINTENANCE

1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
2. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A NEAT, CLEAN, AND HEALTHY CONDITION FOR A PERIOD OF 90 DAYS. THIS SHALL INCLUDE PROPER PRUNING, MOWING AND AERATION OF LAWNS, WEEDING, REPLACEMENT OF MULCH, REMOVAL OF LITTER, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. IRRIGATION SHALL BE MAINTAINED IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON AND TO MAXIMIZE WATER CONSERVATION. IF SITE OPENS DURING WINTER, TO AVOID FREEZE DAMAGE ON PLANTINGS, THE 90 DAYS SHOULD BEGIN AFTER ACCEPTANCE OF THE WORK.
3. DURING THE LANDSCAPE MAINTENANCE PERIOD, THE LANDSCAPE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM STRUCTURES IN ALL LANDSCAPE AREAS AT THE MINIMUM SLOPE SPECIFIED IN THE GEOTECHNICAL REPORT. LANDSCAPE AREAS WHICH SETTLE AND CREATE THE POTENTIAL FOR PONDING SHALL BE REPAIRED TO ELIMINATE PONDING POTENTIAL AND BLEND IN WITH THE SURROUNDING GRADES. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GEOTECHNICAL REPORT, THE GRADING PLANS, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER.

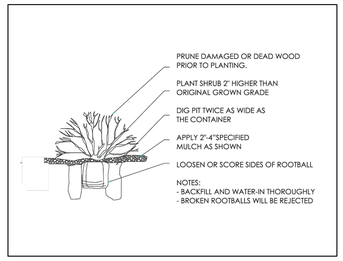


- Excavate planting holes with sloping sides. Make excavations at least three times as wide as the root ball diameter and no deeper than the distance from the top most roots in the root ball to the bottom of the root ball to allow for settling. Do not disturb soil at bottom of planting holes, but do score the sides of the planting hole. The planting area shall be loosened and aerated at least three times the diameter of the root ball. Backfill shall consist of existing on site topsoil – no amendments shall be used unless otherwise specified.
- Trees shall be planted with the root collar/flare visible above grade AND two or more structural roots located within the top 1" to 2" of the root ball/finished grade measured 3" to 4" from trunk. This includes trees that are set on slopes (see slope planting detail). Trees that do not have a visible root collar shall be rejected. Do not cover the root ball with soil.
- When root ball will remain intact, cut off bottom 1/3 of wire basket before placing tree in hole, cut off remainder of basket AFTER tree is set in hole, remove basket completely. At a minimum, the top 2/3 of the burlap and basket shall be removed from the root ball on all trees. Remove all nylon ties, twine, rope and burlap. Remove unnecessary packing material.
- Form soil into a 3" to 5" tall watering ring (saucer) around planting area. This is not necessary in irrigated turf areas. Apply 2" to 4" depth of specified mulch over planting area and inside saucers, away from trunk.
- Staking and guying of trees is optional in most planting situations. In areas of extreme winds, or on steep slopes, staking may be required to stabilize trees. Staking and guying must be removed within 1 year of planting date.
- Tree wrap is *not* to be used on any new plantings, except in late fall planting situations, and only then after consultation with the Town Arborist.
- Resetting of improperly planted trees will only be allowed if it is determined that doing so will in no way compromise the root ball, and shall only be done with approval of the Town Arborist.

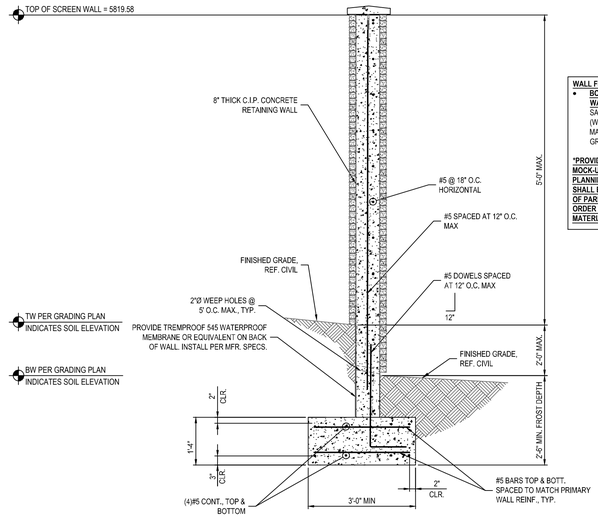
1 TREE PLANTING DETAIL
SCALE: NOT TO SCALE



2 TREE PLANTING DETAIL SLOPES
SCALE: NOT TO SCALE



3 SHRUB PLANTING DETAIL
SCALE: NOT TO SCALE



WALL FINISH SCHEDULE:

- **BOTH EXPOSED FACES OF SCREEN WALL:** THIN BRICK VENEER - DARK SANDSTONE VELOUR BY ENDICOTT (WIRE CUT FINISH) WITH ENDURA MAX PRE-BLENDED GREY COLOR GROUT

***PROVIDE MATERIAL SAMPLES OR MOCK-UP TO OWNER & CITY OF PARKER PLANNING DEPT. AS ALL FINISHES SHALL BE APPROVED BY OWNER & CITY OF PARKER PLANNING DEPT. PRIOR TO ORDER AND INSTALLATION OF MATERIALS**

4 LANDSCAPE SCREEN WALL
SCALE: NOT TO SCALE

CAUTION
UTILITIES EXIST WITHIN CONSTRUCTION LIMITS.
CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THEIR LOCATION PRIOR TO CONSTRUCTION.

SHEET NO. L1.2

TROY NOSER 1360 — 02/12/2019 Original Date of Licensure — STATE OF COLORADO — REVISED LANDSCAPE ARCHITECT
08/25/2021

	DATE					
OTB	08/04/2021	---	JES	EDN	EDN	
		PRN	PM	DES	DRW	

LANDSCAPE DETAILS & NOTES
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

IRRIGATION CONTROLLER 'A'

VALVE NUMBER	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
VALVE SIZE	1.0"	1.0"	1.0"	1.0"	1.0"	OPEN	OPEN	OPEN	OPEN	OPEN
G.P.M.	6.6	6.7	4.9	2.8	4.8	OPEN	OPEN	OPEN	OPEN	OPEN
OPERATION PSI	40	40	40	40	40	OPEN	OPEN	OPEN	OPEN	OPEN
ZONE TYPE	ROTATOR	ROTATOR	DRIP	DRIP	DRIP	OPEN	OPEN	OPEN	OPEN	OPEN

PARKER AND PINE FILING NO. 1 LOT 2

MURPHY OIL USA, INC.

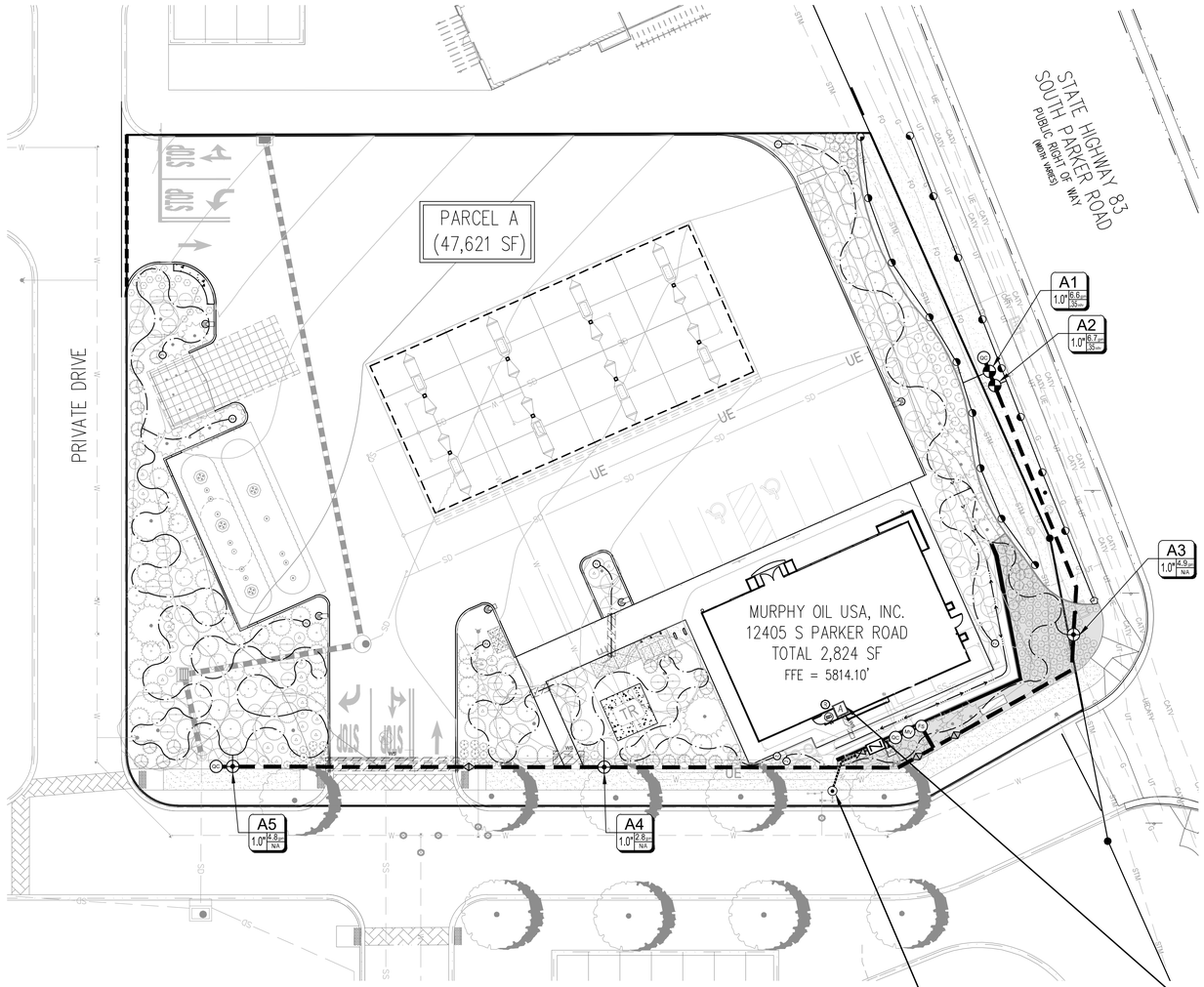
A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.

TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

SITE CONSTRUCTION PLANS

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



CAUTION
UTILITIES EXIST WITHIN CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THEIR LOCATION PRIOR TO CONSTRUCTION.

N

0 10 20
SCALE: 1"=20'

IRRIGATION LEGEND

SYMBOL	MANUF.	MODEL NO.	DESCRIPTION	REMARKS/DETAIL
CONTROLLERS AND SENSORS				
A	HUNTER	I-CORE 10 STATION	IRRIGATION CONTROLLER TO BE A HUNTER IC-1000-M, WITHIN METAL VANDAL RESISTANT LOCKABLE PEDESTAL CABINET. IRRIGATION CONTROLLER TO BE LOCATED AS DIRECTED BY OWNER OR OWNERS REPRESENTATIVE.	DETAIL 1 / IR1.2
R	HUNTER	SOLAR-SYNC	ET/RAIN/FREEZE SENSOR - MOUNT PER DETAIL AND PLAN LOCATION	DETAIL 4 / IR1.2
POINT OF CONNECTION				
	PER CITY OR WATER DISTRICT CODES AND STANDARDS		3/4" POINT OF CONNECTION, REFERENCE CIVIL PLANS FOR TAP LOCATION.	SEE P.O.C. DIAGRAM THIS SHEET
M	PER CITY OR WATER DISTRICT CODES AND STANDARDS		IRRIGATION METER, REFERENCE CIVIL PLANS FOR METER LOCATION.	SEE P.O.C. DIAGRAM THIS SHEET
	FEBCO	MODEL 825YA	3/4" BACKFLOW PREVENTER-MOUNT IN GUARDSHACK MODEL #GS-1 W/ FROST GUARD BAG MODEL #FG-1 FOR WINTERIZATION, SEE POINT OF CONNECTION SCHEMATIC DIAGRAMS	DETAIL 2 / IR1.2
VALVES				
MV	HUNTER	IBV-101G-FS	1" MASTER VALVE	DETAIL 16 / IR1.3
FS	FLOMEC	QS200-10	1" ULTRASONIC FLOWMETER WITH 1" PVC TEE RECEPTACLE	DETAIL 12 / IR1.2
	HUNTER	ICV-FS-ADJ	REMOTE CONTROL VALVE, SIZE PER PLAN. ADJUST PRESSURE REGULATOR BETWEEN 60-55PSI. GROUP VALVES TO FIT WITHIN WATER SCHEDULES/MAXIMIZE AVAILABLE GPMS.	DETAIL 3 / IR1.2
	RAINBIRD	XCZ-100-PRB-COM (0.3-20 GPM)	DRIP CONTROL ZONE KITS (24 VAC-60Hz)-IRRIGATION CONTRACTOR TO VERIFY DRIP ZONES PRESSURE REQUIREMENTS AND USE VALVE REGULATOR FOR HIGH PRESSURES. GROUP VALVES TO FIT WITHIN WATER SCHEDULES/MAXIMIZE AVAILABLE GPMS.	DETAIL 5 / IR1.2
QC	HUNTER	HQ-44-LRC	1" QUICK COUPLER WITH LOCK	DETAIL 9 / IR1.2
	WATTS	WGV-X	GATE VALVE, SEE POINT OF CONNECTION SCHEMATIC DIAGRAMS	DETAIL 7 / IR1.2
	ANY APPROVED	ANY APPROVED	PVC BALL VALVE - SIZE PER MAINLINE SIZE	DETAIL 11 / IR1.2
MAIN LINE/ LATERALS & SLEEVES				
	ANY APPROVED		PRESSURIZED PVC MAINLINE - 1-1/2" CLASS 200 PVC PIPE UNLESS OTHERWISE NOTED ON THE PLANS	DETAIL 10 / IR1.2
	ANY APPROVED		LATERAL LINE - USE CLASS 200 PVC, SIZE 1"-INCH SIZE UNLESS OTHERWISE NOTED ON THE PLANTS. INSTALL ANTI-FREEZE DRAINS AT LOW POINTS.	DETAIL 10 / IR1.2
	ANY APPROVED		IRRIGATION SLEEVE - SCHEDULE 40 PVC TWICE THE SIZE OF THE PIPE TO BE INSERTED, ONE SLEEVE PER PIPE	DETAIL 10 / IR1.2
	ANY APPROVED		CONTROL WIRING SLEEVE - 2" SCHEDULE 40 PVC PIPE (SEE WIRING/SPLICING/SLEEVE NOTE, THIS SHEET)	DETAIL 10 / IR1.2

ROTORS & SPRAY HEADS

HUNTER	PROS-06-CV/MP1000-90 (TURF) PROS-12-CV/MP1000-90 (SEED)	MP ROTATOR-QUARTER	MAROON	8'-13'	0.16	40	DETAIL 15 / IR1.3
HUNTER	PROS-06-CV/MP1000-90 (TURF) PROS-12-CV/MP1000-90 (SEED)	MP ROTATOR-135°	MAROON	8'-13'	0.24	40	DETAIL 15 / IR1.3
HUNTER	PROS-06-CV/MP1000-90 (TURF) PROS-12-CV/MP1000-90 (SEED)	MP ROTATOR-HALF	MAROON	8'-13'	0.32	40	DETAIL 15 / IR1.3
HUNTER	PROS-06-CV/MP1000-360 (TURF) PROS-12-CV/MP1000-360 (SEED)	MP ROTATOR-FULL	OLIVE	8'-13'	0.65	40	DETAIL 15 / IR1.3
HUNTER	PROS-06-CV/MP3000-90 (TURF) PROS-12-CV/MP3000-90 (SEED)	MP ROTATOR-QUARTER	BLUE	20'-28'	0.74	40	DETAIL 15 / IR1.3
HUNTER	PROS-06-CV/MP3000-90 (TURF) PROS-12-CV/MP3000-90 (SEED)	MP ROTATOR-135°	BLUE	20'-28'	1.29	40	DETAIL 15 / IR1.3
HUNTER	PROS-06-CV/MP3000-90 (TURF) PROS-12-CV/MP3000-90 (SEED)	MP ROTATOR-HALF	BLUE	20'-28'	1.58	40	DETAIL 15 / IR1.3

SPRAY NOTES:
1. CONTRACTOR SHALL USE RADIUS REDUCTION SCREWS ON MP ROTATORS AS NECESSARY TO ACHIEVE APPROPRIATE RADII COVERAGE.

DRIP SYSTEM

POINT SOURCE EMITTERS	RAINBIRD	FOR LANDSCAPE BED AREAS - XBS-XXX	XERI BLACK STRIPE POLY TUBING (OR APPROVED EQUAL). CONNECTION TO PVC LATERAL PER CONTRACTOR. ATTACH TREE & SHRUB DRIP EMITTERS PER THE EMITTER SCHEDULE BELOW. USE 3/4-INCH POLY TUBING SIZE UNLESS OTHERWISE NOTED. FLOWS IN GPM FOR LINE CHANGES SHALL BE: (3/4"-1 TO 7 GPM), (1"-8 TO 14 GPM), (1-1/2"-15 TO 35 GPM). INSTALL SEVERAL INLINE CHECK VALVES IN ZONES W/ LARGE ELEVATION DIFFERENCES. GROUP DRIP CONTROLLER VALVES TOGETHER TO MAXIMIZE WATER WINDOWS.	DETAIL 8 / IR1.2
FV	HUNTER	AFV-B	AUTOMATIC FLUSH VALVE WITH BARB CONNECTION.	DETAIL 13 / IR1.2
DRIP EMITTER SCHEDULE	PROVIDE THE FOLLOWING DRIP EMITTERS FOR EACH PLANT:	PLANTS, 1 GALLON AND SMALLER: PLANTS, 5 GALLON: UPRIGHT JUNIPERS, 10-15 GALLON: TREES, 1" TO 2-1/2" CALIPER: TREES, 3" TO 4" CALIPER:	1, XB-10PC - (1 GPH) EMITTER PER PLANT 2, XB-10PC - (2 GPH) EMITTERS PER PLANT 3, XB-10PC - (3 GPH) EMITTERS PER TREE 4, XB-10PC - (4 GPH) EMITTERS PER TREE 7, XB-10PC - (7 GPH) EMITTERS PER TREE	– – –

IRRIGATION DISCLAIMER

1. IRRIGATION DESIGN IS NOT AN EXACT SCIENCE. IT IS BASED ON THEORIES, ASSUMPTIONS, AND/OR INFORMATION PROVIDED BY CIVIL MODELS/UTILITIES/MUNICIPALITIES ENTITIES AND THUS DIAGRAMMATIC IN NATURE.
2. CONTRACTOR SHALL INSTALL MAINLINES ±12" FROM PAVEMENT EDGE IN PLANTING AREAS. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS AS INDICATED ON THESE PLANS.
3. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE AND VISIBLE IRRIGATION EQUIPMENT (CONTROLLERS, BACKFLOW PREVENTERS, METER PITS, ETC.) WITH THE OWNER'S AUTHORIZED REPRESENTATIVE AND / OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE INSTALLATION OF THESE ITEMS SHALL BE INTEGRATED WITHIN DESIGNATED LANDSCAPE AREAS. FAILURE TO LOCATE THIS EQUIPMENT IN AN APPROVED LOCATION MAY RESULT IN THE IRRIGATION CONTRACTOR BEING REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
4. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE DRAWINGS. THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION OF ANY COMPONENT OF THE IRRIGATION SYSTEM. AFTER FIELD VERIFICATION, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE OWNER, OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT, & IRRIGATION DESIGNER OF THE PRESSURE READING FOR THE TAP.
5. ALL PRESSURIZED MAINLINES, VALVES, DRIP, AND ROTOR AND SPRAY HEADS SHALL BE INSTALLED A MINIMUM OF 5' AWAY FROM ANY BUILDING FOUNDATION. ADDITIONAL REQUIREMENTS MAY BE LISTED IN THE GEOTECHNICAL REPORT REGARDING IRRIGATION NEAR BUILDING FOUNDATIONS. CONTRACTOR IS RESPONSIBLE TO ABIDE BY THE 5' MINIMUM DISTANCE AND/OR THE GEOTECHNICAL REPORT REQUIREMENTS. IF THIS EQUIPMENT IS SHOWN WITHIN THE 5' OFFSET ON THESE PLANS, IT IS FOR THE PURPOSE OF GRAPHIC CLARITY ONLY.
6. REFER TO SHEET IR1.2 FOR IRRIGATION DETAILS AND IR1.3 FOR IRRIGATION NOTES.

UTILITY NOTES

1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCY NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
2. THIS DRAWING IS A PART OF A COMPLETE SET OF BID DOCUMENTS, SPECIFICATIONS, ADDITIONAL DRAWINGS, AND EXHIBITS. UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE, AND REVIEWING ALL RELATED DOCUMENTS.
3. THE LOCATION OF THE ALL UNDERGROUND UTILITIES ARE LOCATED ON THE ENGINEERING DRAWINGS FOR THIS PROJECT. THE MOST CURRENT REVISION IS HERE IN MADE PART OF THIS DOCUMENT. UNDERGROUND UTILITIES EXIST THROUGHOUT THIS SITE AND MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITY. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MAY BE NECESSARY AND MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL, AND UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED WITHOUT REFERENCING THE ABOVE MENTIONED DOCUMENTS.

POINT OF CONNECTION 'A'

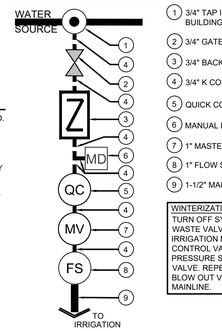
STATIC PRESSURE: +/- TBD
SIZE OF TAP: 3/4"

- USE 3/4" TAP AND INTO THE DOMESTIC WATER LINE DOWNSTREAM OF THE BUILDING METER.
- 3/4" TYPE K COPPER SERVICE FROM THE TAP THROUGH THE IRRIGATION BACKFLOW, TO THE MASTER VALVE.
- CONTRACTOR SHALL VERIFY LOCATION OF THE EQUIPMENT, IN FIELD WITH OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT.
- SEE POINT OF CONNECTION DIAGRAM, THIS SHEET, FOR THE IRRIGATION SYSTEM EQUIPMENT CONFIGURATION.
- THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION. SEE GENERAL IRRIGATION NOTES.
- WHEN WATER PRESSURE TO THE IRRIGATION SYSTEM EXCEEDS 100 PSI, THE IRRIGATION CONTRACTOR SHALL INSTALL A PRESSURE REDUCING / REGULATING VALVE (PRV) TO LIMIT THE WATER TO 80 PSI MAXIMUM. WHEN PRESSURE DROPS BELOW 65 PSI, THE IRRIGATION CONTRACTOR SHALL INSTALL A BOOSTER PUMP TO A MINIMUM PRESSURE OF 80 PSI.

CONTROLLER 'A' NOTE

- ONE (1) 10 STATION CONTROLLER, SEE LEGEND.
- FIVE (5) OPEN STATIONS FOR FUTURE EXPANSION.
- STATION RUN ORDER SHALL MATCH PLANS.
- LOCATE CONTROLLER IN THE UTILITY CLOSET AS SPECIFIED ON THE BUILDING PLANS. VERIFY LOCATION WITH OWNER OR REPRESENTATIVE.
- 120 VAC POWER TO CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. HOOK-UP OF CONTROLLERS TO 120 VAC SHALL BE PERFORMED BY THE LANDSCAPE CONTRACTOR.
- CONDUIT FROM INSIDE THE BUILDING TO EXTERIOR IRRIGATION SYSTEM SHALL BE PROVIDED BY OTHERS.

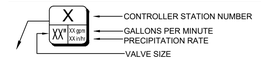
TYPICAL POINT OF CONNECTION SCHEMATIC DIAGRAM



1. 3/4" TAP INTO DOMESTIC LINE DOWNSTREAM OF THE BUILDING METER, SEE CIVIL FOR TAP LOCATION
2. 3/4" GATE VALVE
3. 3/4" BACKFLOW DEVICE
4. 3/4" K COPPER WATER SERVICE PIPE
5. QUICK COUPLER/FOR BLOW OUT
6. MANUAL DRAIN VALVE, SEE SHEET IR1.2 DETAIL 14
7. 1" MASTER VALVE
8. 1" FLOW SENSOR
9. 1-1/2" MAINLINE, CLASS 200 PIPE

WINTERIZATION PROCEDURES:
TURN OFF SYSTEM AT STOP AND WASTE VALVE DOWNSTREAM OF THE IRRIGATION METER. OPEN ONE CONTROL VALVE TO RELIEVE PRESSURE SLOWLY OPEN BLOW OUT VALVE. REPEAT PROCEDURE FOR ALL BLOW OUT VALVES ALONG IRRIGATION MAINLINE.

VALVE KEY DIAGRAM



WIRING / SPLICING / SLEEVING NOTES

- 14 AWG WIRE TO BE USED FOR UP TO 10,000 LF. 12 AWG WIRE SHALL BE USED BETWEEN 10,000 LF & 15,000 LF.
- ALL CONNECTIONS AND SPLICES MUST BE MADE WITH DBRY-6 WATERPROOF CONNECTORS. LEAVE 5 LF OF WIRE SLACK FOR EASE OF MAINTENANCE AND PREVENT DAMAGE FROM CONTRACTION.
- PROVIDE AND INSTALL SCHEDULE 40 PVC SLEEVES FOR ALL CONTROLLER WIRES OCCURRING UNDER ALL ROADWAYS AND WALKWAYS. SLEEVES FOR CONTROLLER WIRES SHALL BE 2" DIA.

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TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

SHEET NO. IR1.1

TROY NOSER 1360
02/12/2019
Original Date of Licensure
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT
08/25/2021

REV – 0	07/12/2021	---	JES	KML	KML
	DATE	PRN	PM	DES	DRW

IRRIGATION PLAN
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

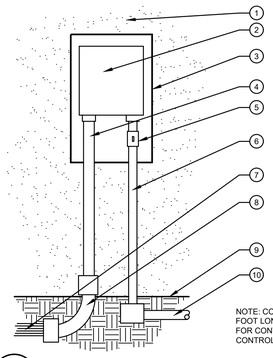
MURPHY OIL USA, INC.
MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730

PARKER AND PINE FILING NO. 1 LOT 2

MURPHY OIL USA, INC.
A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

SITE CONSTRUCTION PLANS

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

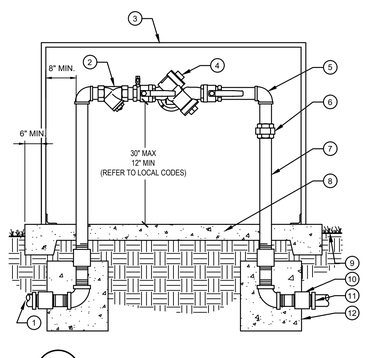


NOTE: VERIFY FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION

1. EXTERIOR WALL
2. CONTROLLER PER LEGEND
3. LOCKING VANDAL-RESISTANT ENCLOSURE. ATTACH TO WALL PER MANUFACTURER'S SPECIFICATIONS.
4. PVC CONDUIT FOR CONTROL WIRES
5. POWER SWITCH
6. 120 VOLT POWER WIRES IN CONDUIT. INSTALL PER ALL APPLICABLE CODES.
7. CONTROL WIRES
8. INSTALL PVC SWEEP 1'-6" BELOW FINISH GRADE. WIRES SHALL SHARE MAINLINE TRENCHING WHEREVER POSSIBLE.
9. FINISH GRADE
10. ELECTRICAL SOURCE PER ALL APPLICABLE ELECTRICAL CODES

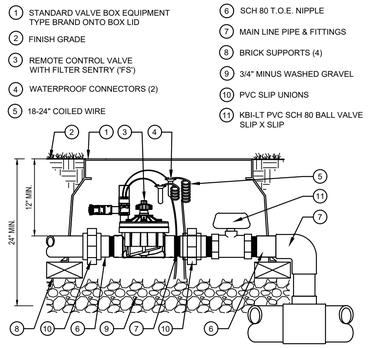
NOTE: CONTRACTOR SHALL PROVIDE AND INSTALL AN EIGHT FOOT LONG COPPER GROUNDING ROD INTO THE GROUND FOR CONTROLLER. PROVIDE PROPER INSTALLATION FOR CONTROLLER PER MANUFACTURER RECOMMENDATIONS.

1 WALL MOUNT CONTROLLER
SCALE: NOT TO SCALE



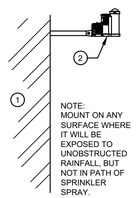
1. TO POINT OF CONNECTION- ADAPT AS NECESSARY ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES
2. BRASS WYE STRAINER W/60 MESH SCREEN
3. ENCLOSURE PER IRRIGATION LEGEND
4. BACKFLOW PREVENTER UNIT
5. BRASS 90 DEGREE ELLS (TYP.)
6. BRASS UNION (TYPICAL)
7. BRASS NIPPLES (TYPICAL)
8. 4" CONCRETE PAD - SLOPE TO DRAIN AWAY FROM BACKFLOW PREVENTER
9. FINISH GRADE 2" BELOW PAD
10. BRASS COUPLING
11. PIPE ADAPTER AND MAINLINE PIPE
12. 12"X12"X12" THRUST BLOCKS

2 BACKFLOW PREVENTER, REDUCED PRESSURE
SCALE: NOT TO SCALE



1. STANDARD VALVE BOX EQUIPMENT TYPE BRAND ONTO BOX LID
2. FINISH GRADE
3. REMOTE CONTROL VALVE WITH FILTER SENTRY ('FS')
4. WATERPROOF CONNECTORS (2)
5. 18-24" COILED WIRE
6. SCH 80 T.O.E. NIPPLE
7. MAIN LINE PIPE & FITTINGS
8. BRICK SUPPORTS (4)
9. 3/4" MINUS WASHED GRAVEL
10. PVC SLIP UNIONS
11. KBI-LT PVC SCH 80 BALL VALVE SLIP X SLIP

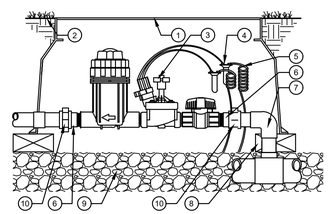
3 REMOTE CONTROL VALVE
SCALE: NOT TO SCALE



NOTE:
MOUNT ON ANY SURFACE WHERE IT WILL BE EXPOSED TO UNOBSTRUCTED RAINFALL, BUT NOT IN PATH OF SPRINKLER SPRAY.

1. EXTERIOR WALL OR POLL
2. RAIN SENSOR

4 WEATHER SENSOR
SCALE: NOT TO SCALE

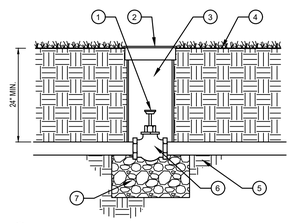


1. STANDARD VALVE BOX, BRAND EQUIPMENT TYPE AND ZONE NUMBER ONTO LID
2. FINISH GRADE
3. DRIP ZONE KIT PER PLAN
4. WATERPROOF CONNECTORS (2)
5. 18-24" COILED WIRE
6. SCH 80 T.O.E. NIPPLE
7. MAIN LINE PIPE & FITTINGS
8. BRICK SUPPORTS (4)
9. 6" MINIMUM LAYER OF 3/4" MINUS WASHED GRAVEL
10. PVC SLIP UNIONS

5 REMOTE DRIP CONTROL VALVE
SCALE: NOT TO SCALE

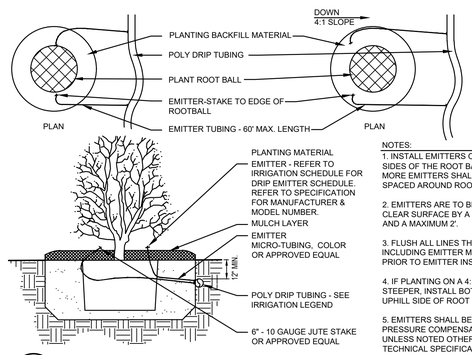
NOTES:
1. PRESSURE SUPPLY LINES SIZE 2" AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. SEE SOILS ENGINEER FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.

6 THRUST BLOCKING
SCALE: NOT TO SCALE



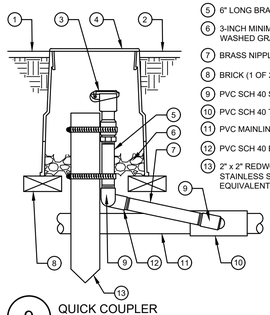
1. KEY HEAD PER HEAD
2. 9" ROUND VALVE BOX-EQUIPMENT TYPE BRAND ONTO BOX LID
3. 4" PVC SLEEVE
4. FINISH GRADE AT 1" BELOW TOP OF BOX IN TURF AREAS: 2" BELOW TOP OF BOX IN SHRUB/GROUNDCOVER AREAS
5. IRRIGATION MAINLINE
6. GATE VALVE (SIZED PER MAINLINE)
7. 1' DIA. x 12-INCH MINIMUM DEPTH OF ¾-INCH CRUSHED ROCK

7 GATE STOP VALVE
SCALE: NOT TO SCALE



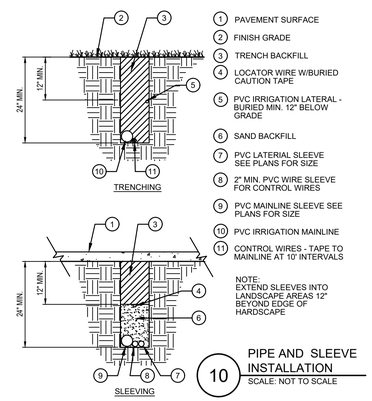
NOTES:
1. INSTALL EMITTERS ON OPPOSING SIDES OF THE ROOT BALL. THREE OR MORE EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL.
2. EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MINIMUM OF 1" AND A MAXIMUM 2'.
3. FLUSH ALL LINES THOROUGHLY, INCLUDING EMITTER MICRO-TUBING PRIOR TO EMITTER INSTALLATION.
4. IF PLANTING ON A 4:1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOT BALL.
5. EMITTERS SHALL BE SELF-FLUSHING, PRESSURE COMPENSATING-TYPE UNLESS NOTED OTHERWISE WITHIN TECHNICAL SPECIFICATIONS.

8 DRIP EMITTERS LAYOUT
SCALE: NOT TO SCALE



1. TOP OF MULCH
2. FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB AREAS
3. QUICK-COUPLING VALVE
4. 10" ROUND PLASTIC VALVE BOX BY CARSON (OR EQUAL) EQUIPMENT TYPE BRAND ONTO BOX LID
5. 6" LONG BRASS NIPPLE
6. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
7. BRASS NIPPLE (LENGTH AS REQUIRED)
8. BRICK (1 OF 2)
9. PVC SCH 40 STREET ELL
10. PVC SCH 40 TEE OR ELL
11. PVC MAINLINE PIPE
12. PVC SCH 40 ELL
13. 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

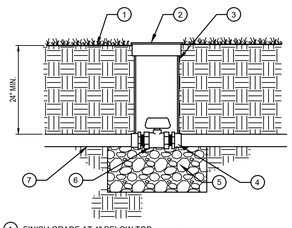
9 QUICK COUPLER
SCALE: NOT TO SCALE



1. PAVEMENT SURFACE
2. FINISH GRADE
3. TRENCH BACKFILL
4. LOCATOR WIRE W/BURIED CAUTION TAPE
5. PVC IRRIGATION LATERAL - BURIED MIN. 12" BELOW GRADE
6. SAND BACKFILL
7. PVC LATERAL SLEEVE SEE PLANS FOR SIZE
8. 2" MIN. PVC WIRE SLEEVE FOR CONTROL WIRES
9. PVC MAINLINE SLEEVE SEE PLANS FOR SIZE
10. PVC IRRIGATION MAINLINE
11. CONTROL WIRES - TAPE TO MAINLINE AT 10' INTERVALS

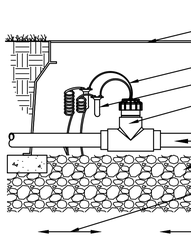
NOTE:
EXTEND SLEEVES INTO LANDSCAPE AREAS 12" BEYOND EDGE OF HARDSCAPE

10 PIPE AND SLEEVE INSTALLATION
SCALE: NOT TO SCALE



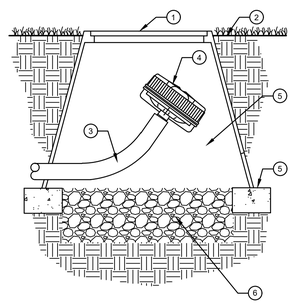
1. FINISH GRADE AT 1" BELOW TOP OF BOX IN TURF AREAS: 2" BELOW TOP OF BOX IN SHRUB/GROUNDCOVER AREAS
2. 9" ROUND VALVE BOX WITH LOCKABLE LID-EQUIPMENT TYPE BRAND ONTO BOX LID
3. EXTENSION SECTION AS NECESSARY TO MEET GRADE
4. PVC MALE ADAPTER
5. 3-INCH MINIMUM DEPTH OF ¾-INCH WASHED GRAVEL
6. PLASTIC BALL VALVE (SIZED PER MAINLINE)
7. IRRIGATION MAINLINE

11 PLASTIC BALL VALVE
SCALE: NOT TO SCALE



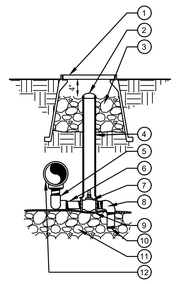
1. 10" DIA ROUND VALVE BOX, BRAND EQUIPMENT TYPE ONTO LID
2. FINISH GRADE
3. MIN. 18/2 WIRE TO CONTROLLER. MAX WIRE DISTANCE RUN OF 1,000'
4. DBRY-6 WIRE CONNECTORS (2)
5. FLOW SENSOR AS REFERENCED IN IRRIGATION LEGEND
6. PVC MAINLINE PIPE
7. 6" MINIMUM LAYER OF 3/4" MINUS WASHED GRAVEL
8. BRICK SUPPORTS (3)
9. ALLOW MINIMUM DISTANCE OF 10X FLOW SENSOR SIZE FROM NEAREST UPSTREAM VALVE, FITTING, OR REDUCING COUPLER FROM EDGE OF FLOW SENSOR
10. ALLOW MINIMUM DISTANCE OF 5X FLOW SENSOR SIZE FROM NEAREST DOWNSTREAM VALVE, FITTING OR REDUCING COUPLER FROM EDGE OF FLOW SENSOR

12 FLOW SENSOR
SCALE: NOT TO SCALE



1. 6" DIA ROUND VALVE BOX, BRAND EQUIPMENT TYPE ONTO LID
2. FINISH GRADE
3. POLYPIPE DRIP LINE
4. AUTOMATIC FLUSH VALVE
5. BRICK SUPPORTS (3)
6. 6" MINIMUM LAYER OF 3/4" MINUS WASHED GRAVEL

13 FLUSH DRAIN VALVE
SCALE: NOT TO SCALE



1. CARSON-BROOKS VALVE BOX. EQUIPMENT TYPE BRAND ONTO BOX LID- REFER TO TECHNICAL SPECIFICATIONS
2. 2" VALVE MARKER
3. 3/4" CRUSHED GRAVEL SUMP 1 CU. FT.
4. 2" CL160 PVC ACCESS SLEEVE - LENGTH AS REQUIRED
5. 3/4" FxF SCH.80 PVC 90 ELL (2) 3/4"xCL PVC NIPPLE SCH. 80 (2)
6. 3/4"x6" SCH. 80 GALVANIZED STEEL NIPPLE
7. 3/4" McDONALD #6101 SERIES VALVE
8. 3/4" MxF SCH.40 PVC 90 ELL
9. SOIL BLANKET COVERING SUMP
10. 3/4"x4" PVC NIPPLE SCH. 80
11. 3/4" CRUSHED GRAVEL SUMP SEE TECHNICAL SPECIFICATIONS FOR SUMP SIZE
12. PRESSURE MAINLINE

14 MANUAL DRAIN VALVE
SCALE: NOT TO SCALE

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TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

SHEET NO. IR1.2

TROY NOSER 1360
02/12/2019
Original Date of Licensure
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT
08/25/2021

REV-0	DATE	PRN	PM	DES	DRW
	07/12/2021	---	JES	KML	KML

IRRIGATION DETAILS
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12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
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MURPHY OIL USA, INC.
MURPHY USA
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EL DORADO, AR 71730

PARKER AND PINE FILING NO. 1 LOT 2

MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.

TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

SITE CONSTRUCTION PLANS

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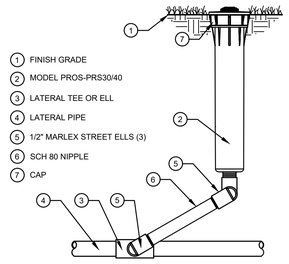
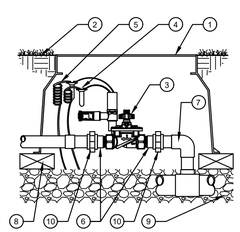
GENERAL IRRIGATION NOTES

GENERAL IRRIGATION NOTES

1. IRRIGATION DESIGN IS NOT AN EXACT SCIENCE. IT IS BASED ON THEORIES, ASSUMPTIONS, AND/OR INFORMATION PROVIDED BY CIVIL MODELS/UTILITIES/MUNICIPAL ENTITIES AND THUS, IS DIAGRAMMATIC IN NATURE. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR GRAPHIC CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
2. REFER TO SPECIFICATIONS (AS APPROPRIATE) FOR SUBMITTALS, INSPECTIONS AND OTHER APPLICABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE PROJECT SPECIFICATIONS PRIOR TO BIDDING. THE PROJECT SPECIFICATIONS ARE A PART OF THESE PLANS AND SHALL BE CONSULTED BY THE IRRIGATION CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING WORK AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND ON THE PLANS.
3. THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK, AND SHALL OBTAIN ALL ENGINEERING, LANDSCAPE, AND OTHER APPLICABLE PLANS & DOCUMENTS. CONTRACTOR SHALL THOROUGHLY REVIEW PLANS & REPORT ANY CONFLICTS OR DISCREPANCIES TO OWNER'S REPRESENTATIVE IMMEDIATELY.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK. DO NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE EXISTED AT THE TIME OF THE IRRIGATION DESIGN PREPARATION. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND LANDSCAPE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT GIVEN, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY TO BRING THE SYSTEM TO A PROPER WORKING CONDITION, AND TO THE OWNER'S SATISFACTION.
5. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, RETAINING WALLS, ETC. THE IRRIGATION CONTRACTOR SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES THROUGH WALL, UNDER ROADWAY PAVING, ETC.
6. THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
7. SEE CIVIL ENGINEER'S DRAWINGS FOR IRRIGATION POINT OF CONNECTION (TAP) AND DOMESTIC WATER SUPPLY.
8. ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS
9. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE POINT OF CONNECTION NOTE TAG(S) ON THE DRAWINGS. THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DIFFERENCES BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE AND LANDSCAPE ARCHITECT. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED OR PRESSURES HAVE GREATLY CHANGED PRIOR TO THE START OF THE IRRIGATION SYSTEM CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR RECOMMENDING A SOLUTION AND PROVIDING AN ADD ALTERNATE BID FOR IRRIGATION COSTS.
10. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE WATER PRESSURE EXCEEDS 5 PSI HIGHER OR LOWER THAN AVAILABLE WATER PRESSURE.
11. NO MORE THAN 90% OF AVAILABLE MINIMUM STATIC WATER PRESSURE WAS USED IN PREPARATION OF THESE PLANS, FURTHERMORE, THE MAXIMUM FLOW THROUGH THE METER SHOULD NOT EXCEED 75% OF THE MAXIMUM SAFE FLOW.
12. SUPPLY LINE AND METER TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR'S POINT OF CONNECTION TO BEGIN AFTER THE IRRIGATION WATER METER.
13. INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN ON THE PLANS AND DETAILS. NO SUBSTITUTIONS OF EQUIPMENT WILL BE ACCEPTABLE WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT OR THE OWNERS REPRESENTATIVE. THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE ALL UNAPPROVED SUBSTITUTED EQUIPMENT AT HIS OWN COST IF SO DIRECTED BY THE OWNER.
14. WHEN INSTALLING IRRIGATION PIPE AND EQUIPMENT NEXT TO HARDSCAPE (SUCH AS WALLS, CURBS, OR WALKS), PLACE PIPE AS CLOSE AS POSSIBLE TO HARDSCAPE TO AVOID CONFLICTS WITH PLANTING. REFER TO MAINLINE TRENCHING DETAILS FOR ADDITIONAL INFORMATION.
15. THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V.A.C. ELECTRICAL POWER TO CONTROLLERS AND DEDICATE ONE (1) 20-AMP BREAKER FOR EACH CONTROLLER. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT ONLY.
16. THE RAIN SENSOR SHALL BE LOCATED NEAR THE IRRIGATION CONTROLLER, AND SHALL BE MOUNTED AS SHOWN ON THE DETAIL AND/OR LEGEND. LOCATE SENSOR AWAY FROM TALL TREES, SHRUBS, AND OTHER POTENTIAL OBSTRUCTIONS.
17. ALL VALVE CONTROL WIRE SHALL BE AWG 14 TYPE UF, 600 VOLT TEST, DIRECT BURIAL. NO SPLICES SHALL BE ALLOWED EXCEPT AT VALVES AND CONTROLLER. WHERE SPLICES MAY BE NECESSARY DUE TO EXCESSIVELY LONG WIRE RUNS, THE CONTRACTOR SHALL MAKE ALL SPLICES IN 6" ROUND VALVE BOXES WITH 3M'S "DBY-DIRECT BURIAL SPLICE KIT". THE CONTRACTOR SHALL LABEL ALL WIRES WITH WATERPROOF TAGS AND MARKERS AT ALL SPLICES AND VALVE MANIFOLDS, AND SHALL LEAVE A 24" COIL OF EXCESS WIRE AT EACH CONNECTION.
18. CONTRACTOR SHALL PROVIDE #10 COMMON WIRE, DIRECT BURIAL, TO ALL REMOTE CONTROL VALVES.
19. CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3M'S "DBY-DIRECT BURIAL SPLICE KIT" (UNLESS OTHERWISE SPECIFIED).
20. PROVIDE ADDITIONAL IRRIGATION CONTROL WIRES TO THE AMOUNT OF OPEN ZONES ON THE CONTROLLER ALONG EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS.
21. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONTROL WIRE SLEEVES AND PIPE SLEEVES UNDER PAVED AREAS PRIOR TO PAVING. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES. ALL SLEEVING SHALL BE PVC SCHEDULE 40 PIPE. SLEEVES FOR MAINLINE AND LATERAL LINES SHALL BE A MINIMUM TWICE THE DIAMETER OF THE ENCLOSED PIPE. SLEEVES FOR CONTROL WIRES SHALL BE AS PER THE SLEEVING / WIRING NOTE AND THE WIRING SLEEVE LEGEND ITEM AS SHOWN ON THESE DRAWINGS.
22. TRENCH BACKFILL MATERIAL SHALL BE FREE OF ROCKS, GLASS, AND OTHER EXTRANEOUS MATERIALS LARGER THAN 1" IN DIAMETER. BACKFILL SHALL BE COMPACTED TO 90% MAXIMUM DRY DENSITY.
23. WHERE VALVES ARE LOCATED IN CLOSE PROXIMITY TO EACH OTHER, CLUSTER VALVES INTO MANIFOLDS. INSTALL NO MORE THAN ONE VALVE PER VALVE BOX.
24. MANUAL DRAIN VALVE, FOR FREEZE PROTECTION, ARE TO BE LOCATED AT ALL LOW POINTS OF IRRIGATION LATERAL LINES. WHERE THE LOW POINT IS AT THE END OF THE LINE, LOCATE DRAIN VALVE A MINIMUM OF 12" DOWNSTREAM FROM THE LAST SPRINKLER HEAD. SEE DETAIL FOR VALVE ORIENTATION.
25. USE TEFLON TAPE ON ALL PVC MALE PIPE THREADS ON ALL SWING JOINT AND VALVE ASSEMBLIES.
26. ALL IRRIGATION HEADS, INCLUDING FIXED-SPRAY AND DRIP DEVICES, SHALL BE SET PERPENDICULAR TO THE FINISH GRADE OF THE AREA TO BE IRRIGATED.
27. ALL PRESSURIZED MAINLINES, VALVES, DRIP, AND ROTOR AND SPRAY HEADS SHALL BE INSTALLED A MINIMUM OF 3' AWAY FROM ANY BUILDING FOUNDATION. IF THIS EQUIPMENT IS SHOWN WITHIN THE 3' OFFSET ON THESE PLANS, IT IS FOR THE PURPOSE OF GRAPHIC CLARITY ONLY.
28. EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, IT IS THE INTENT OF THE IRRIGATION DESIGN TO INDICATE ALL SPRAY HEADS AS "POP-UPS". IN THE EVENT THAT POP-UP HEADS HAVE NOT BEEN SPECIFIED IN TURF AREAS, IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BRING THIS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BIDDING AND CONSTRUCTION.
29. ALL SPRAY AND ROTOR HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE OR THE LANDSCAPE ARCHITECT BEFORE INSTALLATION. STAKED LOCATIONS SHALL BE SPACED TO PROVIDE HEAD-TO-HEAD COVERAGE. RECOMMENDED SETBACK DISTANCE OF ALL PROPOSED IRRIGATION HEADS IS 12" FROM BACK OF CURB AND EDGE OF PAVEMENT.
30. FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST NOZZLE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS.
31. ALL POP-UP TYPE SPRINKLER HEADS INSTALLED IN TURF AREAS SHALL BE INSTALLED SO THE TOP OF THE SPRINKLER HEAD IS FLUSH WITH THE ADJACENT SIDEWALK, OR PAVING. ALL POP-UP HEADS AWAY FROM HARDSCAPE EDGES IN TURF SHALL BE 1" ABOVE THE FINISH GRADE TO PREVENT CONTACT WITH MOWERS.
32. EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
33. ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.
34. UPON COMPLETION OF INSTALLATION OF IRRIGATION SYSTEM, IRRIGATION CONTRACTOR SHALL PROVIDE THE FOLLOWING:
    A. ACCURATE AND COMPLETE "AS BUILT" PLANS OF IRRIGATION SYSTEM INCLUDING 8-1/2" X 11" ZONE MAP TO BE PLACED INSIDE EACH CONTROLLER BOX.
    B. LOG ON ALL WATER WINDOWS, RUN SCHEDULE TIMES, AND OTHER CHANGES AND/OR MODIFICATIONS TO THE IRRIGATION SYSTEM SINCE INSTALLATION.
    C. ONE HOUR OF TRAINING TO OWNER ON IRRIGATION SYSTEM AND CONTROLLER OPERATION.
    D. THREE OF EACH TYPE OF HEAD AND EMITTER INSTALLED.
    E. ONE OF EACH TYPE OF VALVE INSTALLED.
    F. REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.
35. PRIOR TO ACCEPTANCE OF IRRIGATION SYSTEM AT THE END OF THE MAINTENANCE PERIOD, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE FOLLOWING: CURRENT SCHEDULE RUN TIME AND WATER WINDOW LOG, ALONG WITH NOTING ANY OTHER PERTINENT INFORMATION.
36. UNLESS OTHERWISE SPECIFIED, THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ANYTHING DAMAGED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
37. CONTRACTOR SHALL INSTALL MAINLINES ±12" FROM PAVEMENT EDGE IN PLANTING AREAS. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS AS INDICATED ON THESE PLANS.
38. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND SPECIFICATIONS, THE PLAN SHALL TAKE PRECEDENCE.
39. THE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.



15 MP ROTATOR SPRINKLER
SCALE: NOT TO SCALE



16 MASTER VALVE
SCALE: NOT TO SCALE

ParkerWater & SANITATION DISTRICT

Landscape/Irrigation Worksheet

Project Name: Murphy Oil USA - 12405 S Parker Rd

Landscape/Irrigation Tap address (physical location of tap) 3/4" Tap off the domestic line downstream of the building meter (12405 S Parker Rd, Parker, CO 80134)

Landscape Area	High Water **TURF** (6,000sf = 1 SFE)	Low Water **Native Grass** and **Spray Shrubs & Perennials** (10,000sf = 1 SFE)	**Drip Irrigated** area (20,000sf = 1 SFE)	**Non-**Irrigated area	**Sub-Total** of (calculated) Areas	**PWSD** one SFE per 6000	**SFE Requirement** (Sub-Total Calculation **divided** by 6000 = requirement)
Area #1	2,500 sf x 1 = 2,500	0 sf x .6 = 0	10,497 sf x .3 = 3,149	0 sf x 0 = 0	5,649 sf	6,000	0.94 SFE's

Worksheet Completed by: Troy Noser
Company: Galloway
Address: 6162 S Willow Drive Suite 320
Phone #: Greenwood Village, CO 80111
303-770-8884

Owner/Developer:
Attn:
Billing Address:
Phone #:

ET Controller (with Rain Sensor)

Manufacturer	Hunter I-Core w/ Solar Sync
Model number	Hunter IC-1000-M

Tap Size Requirements:
0 - 1 SFE's requires a 3/4-inch tap
1.1 - 2.0 SFE's requires a 1-inch tap
2.1 - 4.0 SFE's requires a 1 1/2-inch tap
4.1 - 7.0 SFE's requires a 2-inch tap
7.1 - 16.0 SFE's requires a 3-inch tap

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

SHEET NO. IR1.3

TROY NOSER 1360 02/12/2019 Original Date of Licensure STATE OF COLORADO LICENSED LANDSCAPE ARCHITECT
08/25/2021

REV – 0	DATE	PRN	---	JES	PM	KML	DES	KML	DRW
	07/12/2021								

IRRIGATION NOTES & DETAILS
MURPHY EXPRESS
12405 SOUTH PARKER ROAD
PARKER COLORADO

Galloway
6162 S. Willow Drive, Suite 320
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

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MURPHY USA
200 PEACH STREET
EL DORADO, AR 71730