# PLATTE VALLEY APARTMENTS - RENOVATION & ADDITIONS

# PRIVATE STORM CONSTRUCTION PLANS

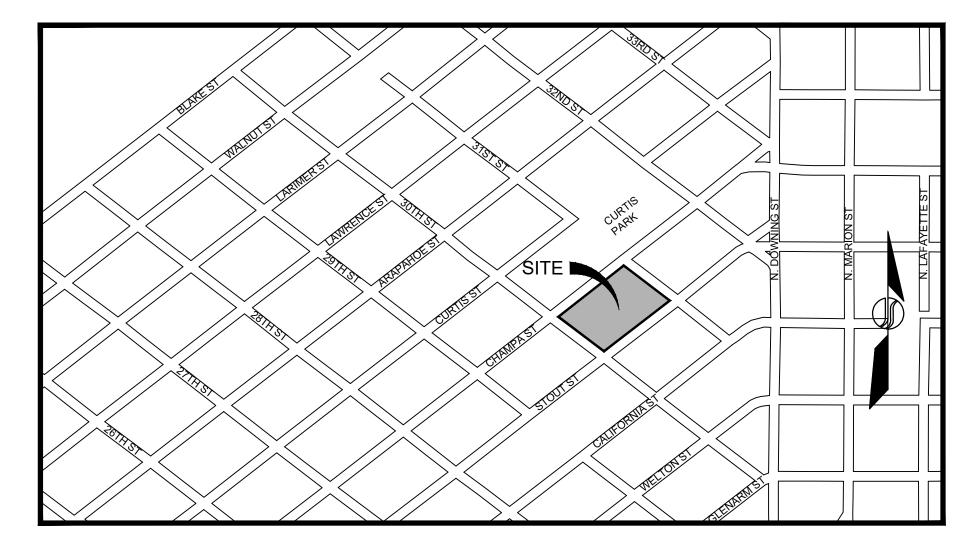
A PARCEL LOCATED IN THE SOUTHWEST QUARTER OF SECTION 26. TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY AND COUNTY OF DENVER, STATE COLORADO

#### **GENERAL NOTES:**

- ALL WORK SHALL CONFORM TO CURRENT CITY AND COUNTY OF DENVER SPECIFICATIONS. IF THE CONSTRUCTION ENGINEERING INSPECTOR FINDS A PROBLEM ON THE APPROVED PLANS DURING CONSTRUCTION THAT CONFLICT WITH A CITY STANDARD, THE INSPECTOR MAY HALT CONSTRUCTION UNTIL THE ISSUE IS RESOLVED.
- THE DEVELOPER IS RESPONSIBLE FOR ANY MODIFICATIONS TO EXISTING PAVEMENT MARKINGS NECESSITATED BY THIS DEVELOPMENT. PROPOSED PAVEMENT MARKING MUST BE 3M COMPANY STAMARK 5730 OR APPROVED EQUIVALENT. ALL MARKINGS MUST BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- BY ORDINANCE FOR PROPOSED NON-RESIDENTIAL SITES HAVING AN OFE-STREET PARKING REQUIREMENT OF 15 SPACES OR MORE A NUMBER OF OFE-STREET BICYCLE PARKING SPACES SHALL BE PROVIDED FOLIAL TO 5% OF THE ALITOMOBILE PARKING SPACE REQUIREMENT. FACH INVERTED "LI" PROVIDED WILL COUNT AS TWO BICYCLE PARKING SPACES. DOCUMENT THESE SPACES ON THE TRANSPORTATION SITE-PLAN.
- OWNER MUST ACQUIRE A MGPEC COMPLIANT QUALITY CONTROL LABORATORY PRIOR TO STARTING CONSTRUCTION AND MUST PERFORM ALL QUALITY CONTROL TESTING WITHIN THE RIGHT-OF-WAY FOLLOWING THE MGPEC FREQUENCY FOR TESTING
- LEGAL DESCRIPTIONS FOR ADDITIONAL R.O.W. TO BE DEEDED TO THE CITY MUST BE SUBMITTED TO PWPRS
- A MONUMENT RECORD MUST BE FILED WITH THE CITY SURVEYOR'S OFFICE THROUGH PWPRS ON ALL CROSSES ON CURRHEADS. BENCHMARKS, RANGE POINTS AND SECTION CORNERS SO THEY CAN BE REPLACED AFTER CONSTRUCTION. THE MONUMENT RECORD MUST BE FILED WITH THE CITY SURVEYOR'S OFFICE BEFORE THE PLAN AND PROFILES CAN BE APPROVED. THIS MUST BE DONE BY A PROFESSIONAL LICENSED LAND SURVEYOR. THESE MONUMENTS MUST BE REPLACED BY THE DEVELOPER'S SURVEYOR BEFORE
- ALL RANGE POINTS, TIES, BENCHMARKS, OR OTHER CITY AND COUNTY OF DENVER SURVEY CONTROL POINTS, WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION, MUST BE
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE CITY AND COUNTY OF DENVER 48 HOURS 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. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR, AT HIS EXPENSE.
- IMPROVEMENTS MADE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A LICENSED AND BONDED RIGHT-OF-WAY CONTRACTOR AND REQUIRE INSPECTION BY THE CITY PRIOR TO A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) OR CERTIFICATE OF OCCUPANCY (CO) BEING ISSUED.
- 10. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PROJECT PERMITS ASSOCIATED WITH CONSTRUCTION. IMPROVEMENTS MADE WITHIN THE PUBLIC RIGHT-OF-WAY TOTALING MORE THAN \$20,000 REQUIRE A PERFORMANCE BOND. CONTACT CONSTRUCTION ENGINEERING AT (303 446-3469) AT LEAST 48 HOURS BEFORE ANY CONSTRUCTION PERMIT
- 1. PERMITTEE SHALL NOTIFY THE CITY INSPECTOR: 1) TWO WORKING DAYS BEFORE COMMENCING WORK ON R.O.W.; 2) WHEN SUSPENDING OPERATIONS FOR 5 OR MORE WORKING DAYS: 3) TWO WORKING DAYS BEFORE RESUMING SUSPENDED WORK: 4) UPON COMPLETION OF WORK
- 12. CONTRACTOR SHALL MAINTAIN AT LEAST ONE COPY OF THE APPROVED PLANS, SPECIFICATIONS AND STANDARDS ON THE JOB SITE AT ALL TIMES.
- 13. CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF, NOTIFYING, COORDINATING AND SCHEDULING ALL INSPECTIONS REQUIRED FOR FINAL APPROVALS AND PROJECT
- 14. ALL WORK, INCLUDING CORRECTION WORK, IS SUBJECT TO NOTIFICATION AND INSPECTION REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT, INCLUDING PROPER TRAFFIC CONTROL DEVICES AND/OR PERSONNEL AS REQUIRED. A TRAFFIC CONTROL PLAN (TCP) IS SUBJECT TO CITY AND COUNTY OF DENVER AND/OR CDOT APPROVAL PRIOR TO COMMENCING WORK ON ROADWAY ROW. A COPY OF APPROVED TCPS MUST BE AVAILABLE ON SITE DURING WORK. TRAFFIC CONTROL TO BE IN ACCORDANCE WITH M.U.T.C.D., SECTION VI.
- 16. ALL WORK WILL BE PROPERLY BACKFILLED PRIOR TO THE END OF WORKDAY, NO OPEN HOLES ARE ALLOWED OVERNIGHT. ALL WORK IS TO BE IN ACCORDANCE WITH PERMIT REQUIREMENTS AND APPLICABLE STANDARDS.
- WHEN AN EXISTING ASPHALT STREET IS CUT, THE STREET MUST BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. THE EXISTING STREET CONDITION SHALL BE DOCUMENTED BEFORE ANY CUTS ARE MADE, PATCHING SHALL BE DONE IN CONFORMANCE WITH THE PROJECT STANDARDS. THE FINISHED PATCH SHALL BLEND SMOOTHLY INTO THE EXISTING SURFACE. ALL LARGE PATCHES SHALL BE PAVED WITH AN ASPHALT LAY-DOWN MACHINE.
- 18. PATCH ASPHALT PAVING AS NECESSARY TO JOIN NEW GUTTERS WITH THE EXISTING PAVEMENT. REMOVAL AND REPLACEMENT OF ASPHALT SHALL BE PER THE LATEST
- 19. CONSTRUCTION OF ANY PORTION OF THE ROADWAY FACILITY, INCLUDING THE PAVEMENT STRUCTURE, SUBSURFACE SUPPORT, DRAINAGE, LANDSCAPING ELEMENTS, AND ALL APPURTENANT FEATURES, SHALL COMPLY WITH THE PROVISIONS OF THE CITY STANDARD SPECIFICATIONS AND STANDARD PLANS.
- 20. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- 21. PERMITTEE SHOULD REMOVE MATERIALS AND EQUIPMENT FROM THE ROADWAY R.O.W. AT THE CLOSE OF DAILY OPERATIONS. THE TCP MUST INCLUDE PROTECTIVE MEASURES WHERE MATERIALS AND EQUIPMENT MAY BE STORED ON R.O.W, BUT ENSURE FIVE FEET OF PEDESTRIAN CLEARANCE ON SIDEWALKS.
- 22 NO WORK SHALL BE PERMITTED AT NIGHT OR ON SATURDAYS SUNDAYS AND HOLIDAYS WITHOUT PRIOR AUTHORIZATIONS OR UNLESS OTHERWISE SPECIFIED IN THIS PERMIT
- CITY MAY RESTRICT WORK ON R.O.W. DURING ADVERSE WEATHER CONDITIONS OR DURING PERIODS OF HIGH TRAFFIC VOLUME. 23. PERMITTEE SHALL NOT SPRAY, CUT, OR TRIM TREES OR OTHER LANDSCAPING ELEMENTS WITHIN ROADWAY ROW, UNLESS SUCH WORK IS OTHERWISE SPECIFIED IN THIS PERMIT
- 24. NO CLEATED OR TRACKED EQUIPMENT MAY WORK IN OR MOVE OVER PAVED SURFACES WITHOUT MATS.

OR CLEARLY INDICATED ON THE APPROVED PLANS.

- 25. MATERIAL REMOVED FROM ANY PORTION OF THE ROADWAY PRISM MUST BE REPLACED IN LIKE KIND WITH EQUAL OR BETTER COMPACTION. NO SEGREGATION OF MATERIAL WILL
- 26. PRIOR TO FINAL ACCEPTANCE, ALL DISTURBED PORTIONS OF ROADWAY RIGHT OF WAY SHALL BE CLEANED UP AND RESTORED TO THEIR ORIGINAL CONDITION, SUBJECT TO CITY
- 27. SEEDING, SODDING, AND PLANTING SHALL BE AS SPECIFIED OR OTHERWISE APPROVED BY CITY, CONSTRUCTION, MAINTENANCE, AND WATERING REQUIREMENTS SHALL CONFORM WITH THE CITY STANDARD SPECIFICATIONS. WHERE LANDSCAPE RESTORATION MUST BE DELAYED DUE TO SEASONAL REQUIREMENTS, SUCH WORK MAY BE
- 28. IN THE EVENT THAT AN EMERGENCY REPAIR TO EXISTING FACILITIES IS NECESSARY, THE CONSTRUCTION ENGINEERING ROW DISTRICT INSPECTOR SHALL IMMEDIATELY BE NOTIFIED OF POSSIBLE TRAFFIC HAZARDS. EMERGENCY PROCEDURES SHALL BE COORDINATED BEFOREHAND, WHERE POSSIBLE, NO WORK WILL BE ALLOWED UNTIL NOTIFICATION IS RECEIVED. EMERGENCY TELEPHONE NOTIFICATION MUST BE FOLLOWED UP WITH A LETTER A SOON AS POSSIBLE.
- 29. ANY EXISTING CURB, GUTTER, DRIVEWAYS, AND SIDEWALK THAT IS FAILING OR DAMAGED MUST BE REPAIRED OR REPLACED AT THE DIRECTION OF CONSTRUCTION
- 30. PROTECTION AND REPLACEMENT OF STREET IMPROVEMENTS ARE THE RESPONSIBILITY OF THE OWNER UNTIL THESE IMPROVEMENTS ARE FULLY COMPLETED AND ACCEPTED BY
- 31. CONSTRUCTION SHALL COMMENCE WITHIN ONE YEAR OF APPROVAL OR RESUBMITTAL IS REQUIRED. CONSTRUCTION SHALL BE COMPLETED WITHIN TWO YEARS OF DES
- 32. DES APPROVAL DOES NOT CONSTITUTE A NOTICE TO PROCEED. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING APPROPRIATE CONSTRUCTION PERMITS.
- 33. UNLESS STREETSCAPE HAS BEEN APPROVED, THE DEVELOPER SHALL LANDSCAPE ALL RIGHT-OF-WAY WITH SOD AND TREES. NO LOOSE MATERIAL (I.E., ROCK, BARK, GRAVEL. ETC.) SHALL BE ALLOWED. DECORATIVE CONCRETE OR LOW GROWING PLANT MATERIAL MAY BE ALLOWED ONLY WITH THE SPECIFIC APPROVAL OF DES. TREES SHALL BE PRE-APPROVED BY THE CITY FORESTER'S OFFICE AND SHALL BE A MINIMUM OF 20' FROM PROPERTY CORNERS AT INTERSECTIONS, 25' FROM STREET LIGHTS AND 10' FROM EDGE
- 34. ANY RELOCATION OF UTILITIES SUCH AS POWER POLES AND FIRE HYDRANTS THAT LIE WITHIN THE PUBLIC RIGHT-OF-WAY WILL BE THE COST OF THE DEVELOPER AND SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY OR AGENCY
- 35. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC RIGHT-OF-WAY, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.
- 36. THE DEVELOPER SHALL PAY XCEL ENERGY FOR THE CONSTRUCTION AND/OR RELOCATION OF STREETLIGHTS WITHIN THE PUBLIC RIGHT-OF-WAY. THE STREETLIGHTS SHALL BE CONSTRUCTED AND/OR RELOCATED TO THE CURRENT CITY STANDARDS AND COORDINATED THROUGH XCEL ENERGY.
- 37. THE OWNER/OPERATOR SHALL HIRE AN MGPEC-COMPLIANT LABORATORY FOR ALL QUALITY CONTROL TESTING OF MATERIALS IN THE ROW. THE CITY AND COUNTY OF DENVER WILL ONLY PROVIDE QUALITY ASSURANCE.
- 38. PLEASE REFER TO 2017-EC-0000217 FOR EROSION CONTROL PLANS AND REQUIREMENTS.
- 39. PLEASE REFER TO 2017-SUDP-0004700, 2017-SUDP-0004701 AND 2017-SUDP-0004702 FOR SANITARY CONNECTIONS.



#### PW STORM & SANITARY STANDARD NOTES:

- NO WORK IS AUTHORIZED WITHOUT A PRE-CONSTRUCTION MEETING AT WHICH YOU WILL RECEIVE A COPY OF THE CITY AND COUNTY OF DENVER STAMPED AND APPROVED SET OF PLANS. PLEASE CALL 303-446-3722 TO SCHEDULE A PRECONSTRUCTION MEETING AFTER YOUR PLANS HAVE BEEN APPROVED
- PUBLIC WORKS, WASTEWATER MANAGEMENT DIVISION'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS FOR SANITARY & STORM SEWERS APPLY TO THIS WORK, PUBLIC WORKS. WASTEWATER MANAGEMENT DIVISION'S STANDARD DETAILS (DRAWINGS), MOST RECENT EDITION, SHALL BE USED AS A MINIMUM. THE TECHNICAL SPECIFICATIONS ARE AVAILABLE FROM DS - SITE ENGINEERING. BOTH SETS MUST BE IN POSSESSION OF THE CONTRACTOR AT THE PRE-CONSTRUCTION CONFERENCE AND MUST REMAIN ON THE JOB SITE AT ALL TIMES DURING
- 3. THE STANDARD DETAILS CAN BE VIEWED AT: WASTEWATER MANAGEMENT DIVISION STANDARD DETAILS 2015.
- CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY RULES AND REGULATIONS. 5. ONE SET OF THE APPROVED SEWER CONSTRUCTION DRAWINGS MUST BE ON-SITE AT ALL TIMES OF CONSTRUCTION
- 6. ALL SEWER PIPES SHALL BE INSTALLED WITH CLASS B BEDDING AS A MINIMUM
- ANY MODIFICATIONS. ADJUSTMENTS. CONSTRUCTION OR RECONSTRUCTION OF PUBLIC WORKS; WASTEWATER DIVISION FACILITIES MUST BE INSPECTED BY A PW CONSTRUCTION ENGINEERING INSPECTOR. PLEASE SCHEDULE AN APPOINTMENT AT 303-446-3722 A MINIMUM OF 48 HOURS IN ADVANCE OF THE WORK TO SCHEDULE AN INSPECTOR.
- PIPE MATERIAL, FITTINGS, TRENCHING, BEDDING, CONNECTIONS, AND SEWER INSTALLATION MUST BE INSPECTED BY A PW CONSTRUCTION ENGINEERING INSPECTOR PRIOR TO ANY TRENCH BACKFILL. PLEASE SCHEDULE AN APPOINTMENT AT 303-446-3722 A MINIMUM OF 48 HOURS IN ADVANCE OF THE WORK TO SCHEDULE AN INSPECTOR. MONITORING OF THE PROJECT BY PW SHALL BE FOR THE PURPOSE OF ASSURING GENERAL COMPLIANCE WITH THE APPROVED PLANS, STANDARDS, DETAILS, AND SPECIFICATIONS AS WELL AS THE RULES & REGULATIONS. STORM AND SANITARY INSPECTIONS SHALL NOT TAKE THE PLACE OF CONSTRUCTION INSPECTION AND MATERIALS TESTING, WHICH IS THE OWNER'S RESPONSIBILITY
- SANITARY SEWER PIPES SHALL BE PVC AND CONFORM TO: ASTM D3034 SDR 35 FOR SIZES 8 INCHES TO 15 INCHES IN DIAMETER (SOLID WALL), ASTM F789 FOR 18 INCHES (SOLID WALL), ASTM F679 FOR SIZES 18 TO 36 INCHES (SOLID WALL), ASTM F949 FOR SIZES 8 TO 36 INCHES (PVC PROFILE WALL), ASTM F794 FOR SIZES 8 TO 48 INCHES (PROFILE WALL), OR ASTM F1803 FOR SIZES 18 TO 60 INCHES (CLOSED PROFILE GRAVITY PIPE).
- 10. ANY QUESTIONS REGARDING STORM OR SANITARY FACILITIES THAT ARISE DURING CONSTRUCTION SHOULD BE BROUGHT TO THE ATTENTION OF PW CONSTRUCTION ENGINEERING AT (303)
- 11. BACKFILL IN PUBLIC RIGHT OF WAY MUST MEET THE REQUIREMENTS OF DENVER PUBLIC WORKS DEPARTMENT. A STREET CUT PERMIT AND INSPECTION OF A BACKFILL AND PAVEMENT REPAIR BY PUBLIC WORKS IS REQUIRED FOR ALL WORK IN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR AND/OR DEVELOPER IS ADVISED TO CONTACT CONSTRUCTION ENGINEERING ROW INSPECTION AT 303- 446-3469 OR PWPO AT 303-446-3759 TO OBTAIN INFORMATION REGARDING FEES AND PROCEDURES FOR OBTAINING THE PAGE 3 OF 6 H:\WEBSITE FOR DS\RESIDENTIAL AND COMMERCIAL MULTI-RESIDENTIAL\WORD DOC\DS STORM AND SANITARY GENERAL GUIDELINES 10202015.DOCX REQUIRED PERMIT(S). CONTRACTOR MUST OBTAIN A STREET CUT PERMIT AND NOTIFY THE DISTRICT INSPECTOR AT (303) 446-3469, 48-HOURS PRIOR TO START OF JOB. COMPACTION TESTING IS REQUIRED.
- 12. THE CONTRACTOR PERFORMING WORK ON ANY PUBLIC OR PRIVATE STORM SEWER FACILITY OR APPURTENANCE MUST BE PROPERLY TRADE LICENSED AS A COMPANY AND HAVE A LICENSED PLUMBER. DRAINLAYER SUPERVISOR OR SEWER CONTRACTOR ON SITE DURING THE WORK.
- 13. ACCESS MUST BE MAINTAINED FOR ALL SEWER MANHOLES DURING CONSTRUCTION. ANY DESIGN CHANGES TO NEW OR EXISTING PUBLIC STORM OR SANITARY SEWER MUST INCLUDE PERMANENT ACCESS TO THE PUBLIC STORM AND SANITARY SEWER MANHOLES AND COULD REQUIRE ROLL-OVER CURB, COMMERCIAL DRIVE, REINFORCED CONCRETE SIDEWALK, RITTER RINGS OR CONCRETE PAD. MINIMUM ACCESS TO EACH MANHOLE IS A 20' WIDE LANE FROM THE NEAREST PUBLIC RIGHT OF WAY, CENTERED AT THE MANHOLE INCLUDING A 10' RADIUS AROUND THE MANHOLE AND 22.0' VERTICAL CLEARANCE.
- 14. THE CONNECTION OF A NEW SANITARY/STORM SEWER TO AN EXISTING MANHOLE MAY REQUIRE MANHOLE RECONSTRUCTION AT THE DISCRETION OF THE PW CONSTRUCTION ENGINEERING INSPECTOR OR THE PW CONSTRUCTION ENGINEERING ENGINEER.
- 15. CHANGES IN THE ELEVATION OF AN EXISTING BRICK MANHOLE MAY REQUIRE THE USE OF A PRE-CAST CONCRETE MANHOLE OR MANHOLE RECONSTRUCTION AT THE DISCRETION OF THE PW CONSTRUCTION ENGINEERING INSPECTOR AND/OR PW CONSTRUCTION ENGINEERING ENGINEER.
- 16. CHANGES IN ELEVATION OR MODIFICATION TO EXISTING INLETS MAY REQUIRE RECONSTRUCTION AT THE DISCRETION OF THE PW CONSTRUCTION ENGINEERING INSPECTOR OR ENGINEER. 17. THE CONTRACTOR SHALL BE AWARE THAT WHEN DEBRIS IS DROPPED INTO PUBLIC MANHOLES AND OTHER PUBLIC STRUCTURES, THE CONTRACTOR IS TO THIS TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS CAUSING BACKUP INTO PRIVATE PROPERTIES. IF IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES
- 18. THE CONTRACTOR SHALL MAKE SURE THAT ALL MANHOLES AND OTHER STRUCTURES ARE BUILT TO FINISHED GRADE.
- 19. NO TREES SHALL BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN TEN (10) FEET OF ANY PUBLIC MANHOLES, PIPES OR INLETS. 20. "AS-BUILT" ELECTRONIC SUBMITTAL OR PRINTS ARE TO BE SUBMITTED TO DEVELOPMENT SERVICES AT COMPLETION OF THE PROJECT. "AS-BUILT" DRAWINGS ARE TO BE REPRODUCIBLE
- COPIES (OR ORIGINALS) OF THE APPROVED CONSTRUCTION DRAWINGS, ANY FIFLD CHANGES ARE TO BE NOTED. THE DRAWINGS WILL STATE "AS-BUILT" IN LARGE BLOCK LETTERS. THE "AS-BUILT" ELECTRONIC SUBMITTAL OR PRINTS ARE TO BE SIGNED, DATED AND STAMPED BY A COLORADO REGISTERED ENGINEER.
- 21. AS-BUILT FIELD NOTES (IF REQUESTED), FROM WHICH THE AS-BUILT DRAWINGS ARE PREPARED, ARE TO BE PROVIDED AND STAMPED/SIGNED AND DATED BY THE COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR. THESE NOTES WILL INCLUDE THE STATIONING OF ANY BUILDING SEWER STUBS INSTALLED.
- 22. UPON COMPLETION OF SITE GRADING AND SEWER CONSTRUCTION, THE OWNER OR DEVELOPER SHALL BE RESPONSIBLE FOR FURNISHING DEVELOPMENT SERVICES WITH A CERTIFICATE OF INSPECTION PREPARED BY THE COLORADO REGISTERED ENGINEER WHO PERFORMED OR SUPERVISED CONSTRUCTION INSPECTION, CERTIFYING THAT: A) A CONSTRUCTION INSPECTOR WAS ON THE JOB SITE AT ALL TIMES SEWER OR DRAINAGE FACILITY WORK WAS PERFORMED,
- B) ALL STORM AND SANITARY SEWER FACILITIES, SITE GRADING, DETENTION POND GRADING AND OUTLET WORKS (IF ANY) WERE CONSTRUCTED IN COMPLIANCE WITH PLANS AND SPECIFICATIONS APPROVED BY THE DEPARTMENT OF PUBLIC WORKS
- C) THE AS-BUILT DRAWINGS INCLUDED ACCURATELY DEPICT THE FINAL INSTALLATION OF THE STORM DRAINAGE AND/OR SEWER SYSTEM. THIS CERTIFICATION SHALL BE REQUIRED FOR ALL STORM AND SANITARY SEWER FACILITIES IN ADDITION TO ANY INSPECTIONS MADE BY THE DIVISION OR THE DEPARTMENT OF PUBLIC WORKS.

# DENVER WATER DEPARTMENT NOTE:

ALL PERSONS AND ENTITIES INVOLVED IN THIS PROJECT SHALL HAVE THE RESPONSIBILITY TO TAKE WHATEVER STEPS NECESSARY TO PROTECT ALL WATER FACILITIES. IF ANY WATER FACILITY CANNOT BE ADEQUATELY PROTECTED, THEN SAID WATER FACILITIES SHALL BE RELOCATED OR REMOVED IN ACCORDANCE WITH DENVER WATER DEPARTMENT REQUIREMENTS.

#### SHEET INDEX:

- C1.2 WASTEWATER COVER SHEET & NOTES
- C4.0 OVERALL GRADING PLAN
- C4.1 DETAILED GRADING PLAN C4.2 DETAILED GRADING PLAN C4.3 DETAILED GRADING PLAN
- C5.0 UTILITY PLAN C6.0 STORM PLAN & PROFILE
- C6.1 STORM PLAN & PROFILE
- C6.2 STORM PLAN & PROFILE C6.3 DETENTION VAULT PLAN
- C6.4 STORM DETAILS C6.5 STORM DETAILS DR1 DRAINAGE PLAN

# RECORD DRAWING

By:<u>Ted Swan\_\_</u>for and on behalf of Ware Malcomb Based on information provided by:

Surveyor: Jeffrey J. Mackenna Company: Falcon Surveying Inc.

This "drawing" is a record document prepared from and based upon, in part, information provided by others. Neither Ware Malcomb nor the Engineer of Record has verified the accuracy of this information and shall not be responsible for any errors or omissions which may be ncorporated herein as a result.

#### ENGINEER'S STATEMENT OF CERTIFICATION:

THESE CONSTRUCTION DRAWINGS FOR PLATTE VALLEY APARTMENTS - RENOVATION & ADDITIONS WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF THE STORM DRAINAGE AND SANITARY CONSTRUCTION DETAILS AND TECHNICAL SPECIFICATIONS AND THE STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA OF THE CITY AND COUNTY OF DENVER.

TED L. SWAN LICENSED PROFESSIONAL ENGINEER STATE OF COLORADO NO. 43903

FOR: JANSEN STRAWN CONSULTING ENGINEERS A WARE MALCOMB COMPANY

NO WORK IS AUTHORIZED WITHOUT A PRE-CONSTRUCTION MEETING AT WHICH YOU WILL RECEIVE A COPY OF THE CITY AND COUNTY OF DENVER STAMPED AND APPROVED SET OF PLANS

PLEASE CALL 303-446-3722 TO SCHEDULE A PRE-CONSTRUCTION MEETING AFTER YOUR PLANS HAVE **BEEN APPROVED** 

# City and County of Denver **Development Services** Site Engineering Checked for General Compliance with applicable Denver Criteria, Rules, Regulations and Standards. **APPROVED** (if validly signed) This approval becomes void if construction is not started within one (1) year of the approval date. Approved by Review Engineer (Note: Signature in Print) APPROVED AS TO FORM **ENGINEERING CALCULATIONS, DRAWINGS AND DESIGN** ADEQUACY ARE ACCEPTED BASED UPON THE PROJECT ENGINEER'S ATTACHED SEAL OF REGISTRATION. THIS APPROVAL IS FOR PRIVATE STORM IMPROVEMENTS CALL THE UTILITY NOTIFICATION CENTER OF COLORADO AT THREE (3) BUSINESS DAYS IN ADVANCE BEFORE DIGGING GRADING OR EXCAVATING FOR MARKING OF MEMBER'S **UNDERGROUND UTILITIES** (Project Engineer's Seal, Signature and Date) DS PROJECT NO. 2017-PROJMSTR-0000589 / 2017-SSPR-0000099 PROJECT NAME: PLATTE VALLEY APARTMENTS -**RENOVATION & ADDITIONS**

DATE 11/22/2017 DATE ISSUED 11/22/2017

DATE 11/22/2017

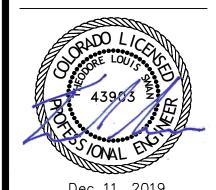
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SHEET 1 OF 13



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A WARE MALCOMB Company



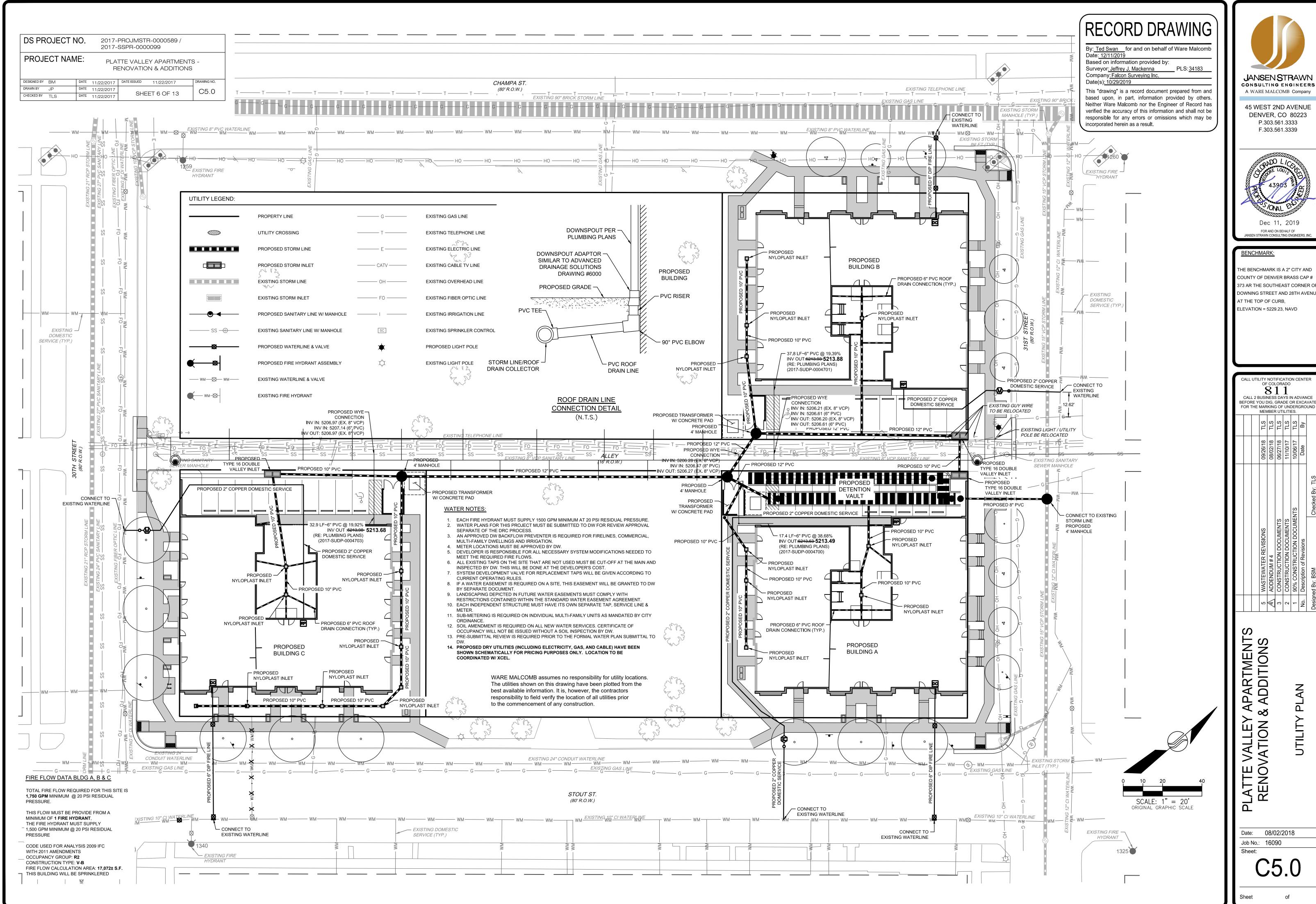
FOR AND ON BEHALF OF

#### BENCHMARK:

THE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # DOWNING STREET AND 28TH AVEN AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD

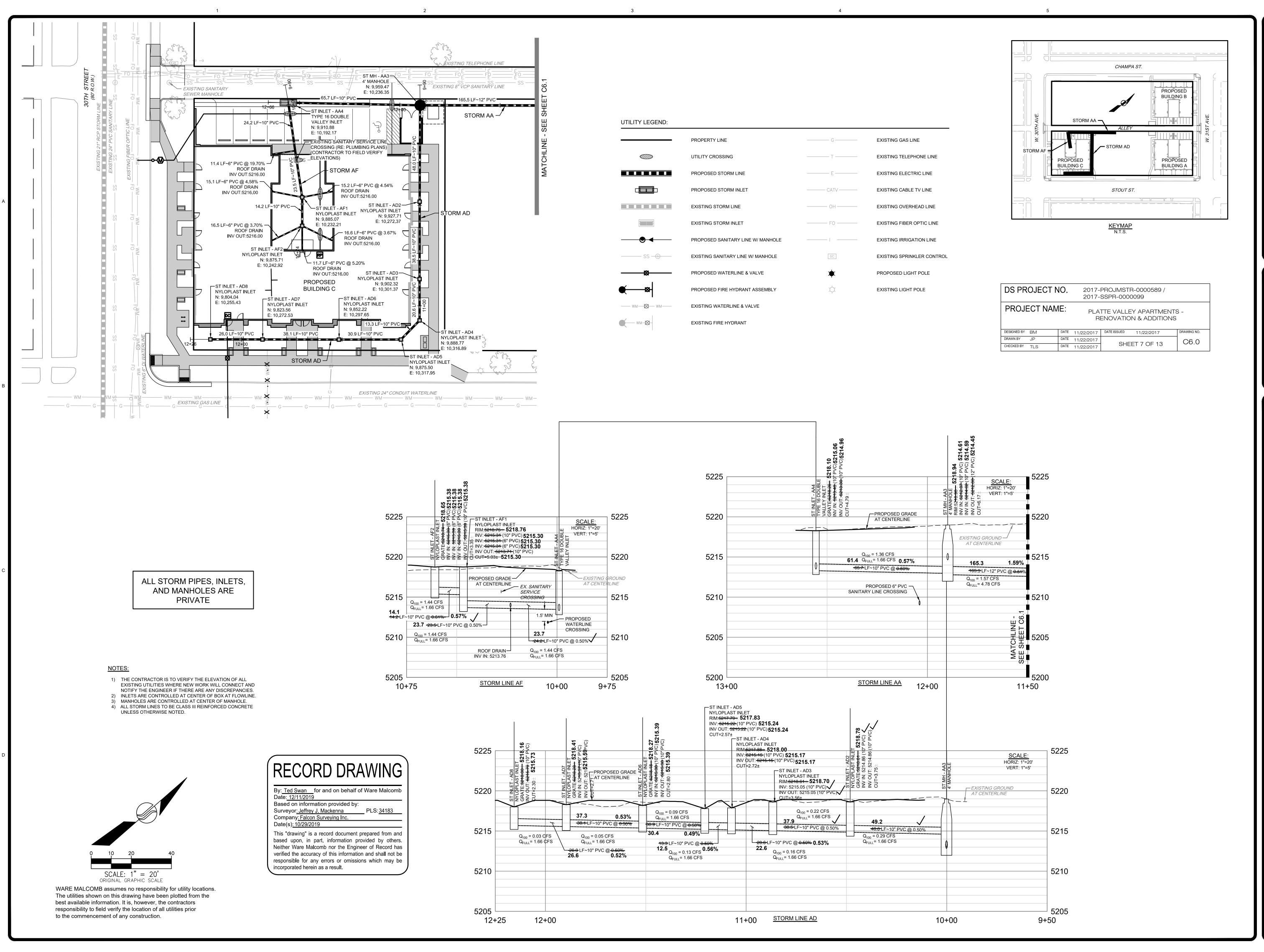
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Job No.: 16090





CALL UTILITY NOTIFICATION CENTER CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATI FOR THE MARKING OF UNDERGROUND



JANSEN STRAWN

JANSEN STRAWN
CONSULTING ENGINEERS
A WARE MALCOMB Company

45 WEST 2ND AVENUE

DENVER, CO 80223

P.303.561.3333 F.303.561.3339



Dec 11, 2019

JANSEN STRAWN CONSULTING ENGINEERS. IN

BENCHMARK:

THE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # 373 AR THE SOUTHEAST CORNER OF DOWNING STREET AND 28TH AVENUE AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD

5 WASTEWATER REVISIONS
5 WASTEWATER REVISIONS
6 WASTEWATER REVISIONS
7 A ADDENDUM # 4

3 CONSTRUCTION DOCUMENTS
7 CONSTRUCTION DOCUMENTS
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Designed By: BSM
Checked By: TLS

ALLEY APARTMENTS ATION & ADDITIONS

PROFILE

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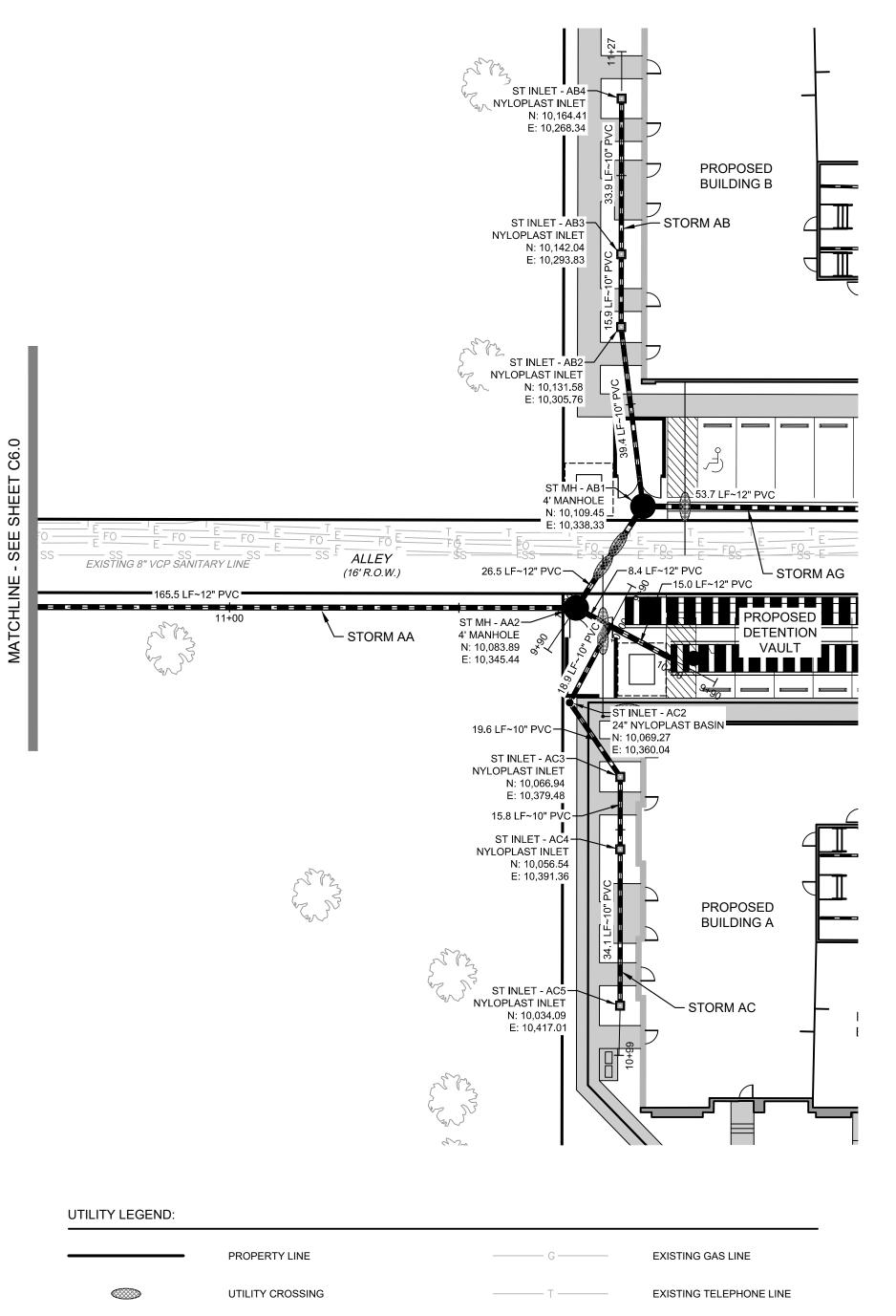
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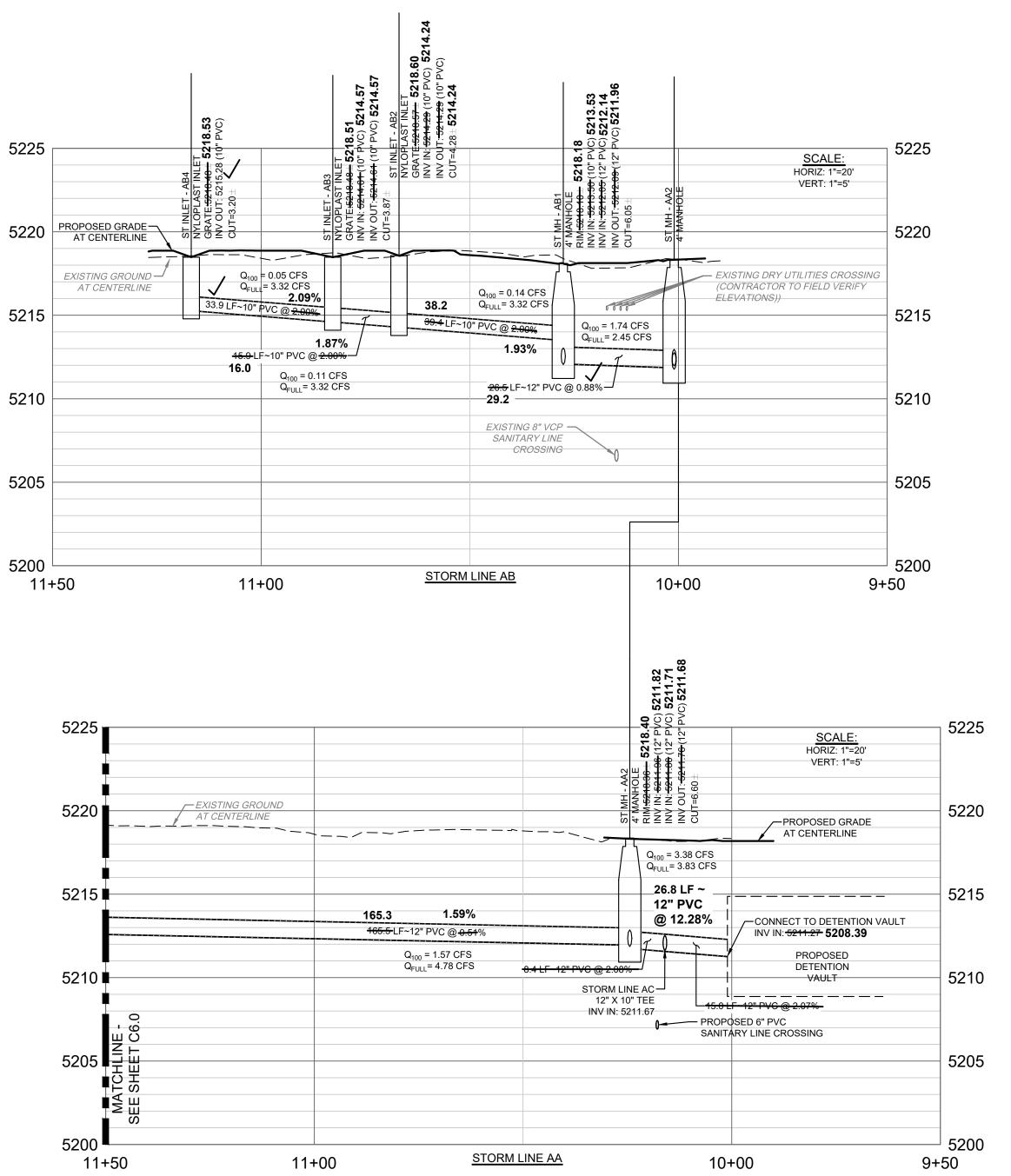


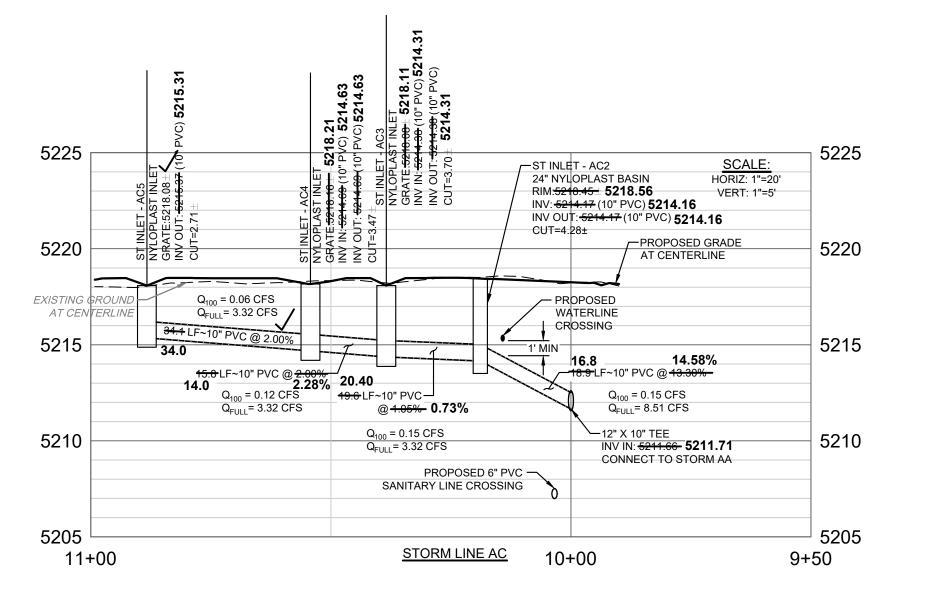
### PROPOSED STORM LINE EXISTING ELECTRIC LINE EXISTING CABLE TV LINE PROPOSED STORM INLET ----- CATV -----EXISTING STORM LINE EXISTING OVERHEAD LINE EXISTING STORM INLET EXISTING FIBER OPTIC LINE PROPOSED SANITARY LINE W/ MANHOLE EXISTING IRRIGATION LINE EXISTING SPRINKLER CONTROL EXISTING SANITARY LINE W/ MANHOLE PROPOSED WATERLINE & VALVE PROPOSED LIGHT POLE PROPOSED FIRE HYDRANT ASSEMBLY EXISTING LIGHT POLE **EXISTING WATERLINE & VALVE** EXISTING FIRE HYDRANT

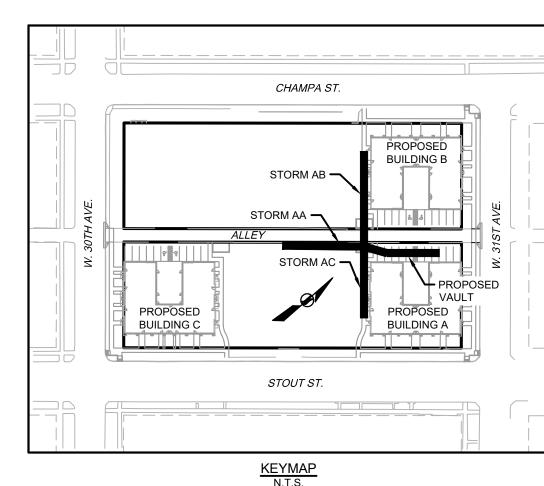
## NOTES

 THE CONTRACTOR IS TO VERIFY THE ELEVATION OF ALL EXISTING UTILITIES WHERE NEW WORK WILL CONNECT AND NOTIFY THE ENGINEER IF THERE ARE ANY DISCREPANCIES.
 INLETS ARE CONTROLLED AT CENTER OF BOX AT FLOWLINE.
 MANHOLES ARE CONTROLLED AT CENTER OF MANHOLE.

 INLETS ARE CONTROLLED AT CENTER OF BOX AT FLOWLINE.
 MANHOLES ARE CONTROLLED AT CENTER OF MANHOLE.
 ALL STORM LINES TO BE CLASS III REINFORCED CONCRETE UNLESS OTHERWISE NOTED.







# RECORD DRAWING

By: Ted Swan for and on behalf of Ware Malcomb Date: 12/11/2019 Based on information provided by: Surveyor: Jeffrey J. Mackenna PLS: 34183

Company: Falcon Surveying Inc.

Date(s): 10/29/2019

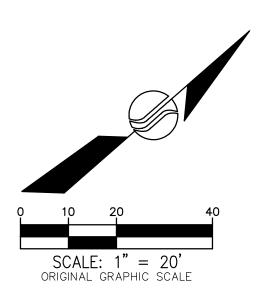
This "drawing" is a record document prepared from and based upon, in part, information provided by others. Neither Ware Malcomb nor the Engineer of Record has verified the accuracy of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

ALL STORM PIPES, INLETS, AND MANHOLES ARE PRIVATE

 DS PROJECT NO.
 2017-PROJMSTR-0000589 / 2017-SSPR-0000099

 PROJECT NAME:
 PLATTE VALLEY APARTMENTS - RENOVATION & ADDITIONS

 DESIGNED BY BM
 DATE 11/22/2017 DATE ISSUED 11/22/2017 DATE ISSUED 11/22/2017 SHEET 8 OF 13
 DRAWING NO. C6.1



WARE MALCOMB assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.



JANSEN STRAWN
CONSULTING ENGINEERS
A WARE MALCOMB Company

45 WEST 2ND AVENUE DENVER, CO 80223 P.303.561.3333 F.303.561.3339



Dec 11, 2019

FOR AND ON BEHALF OF
JANSEN STRAWN CONSULTING ENGINEERS. IN

BENCHMARK:

THE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # 373 AR THE SOUTHEAST CORNER OF DOWNING STREET AND 28TH AVENUE AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD

5 WASTEWATER REVISIONS
5 WASTEWATER REVISIONS
6 WASTEWATER REVISIONS
7 A ADDENDUM # 4

3 CONSTRUCTION DOCUMENTS
7 1/1/10/17 TLS
7 SEALISIONS
8 CONSTRUCTION DOCUMENTS
9 CONSTRUCTION DOCUMENTS
1 90% CONSTRUCTION DOCUMENTS
No. Description of Revisions
Designed By: BSM
Checked By: TLS

VALLEY APARTMENTS VATION & ADDITIONS

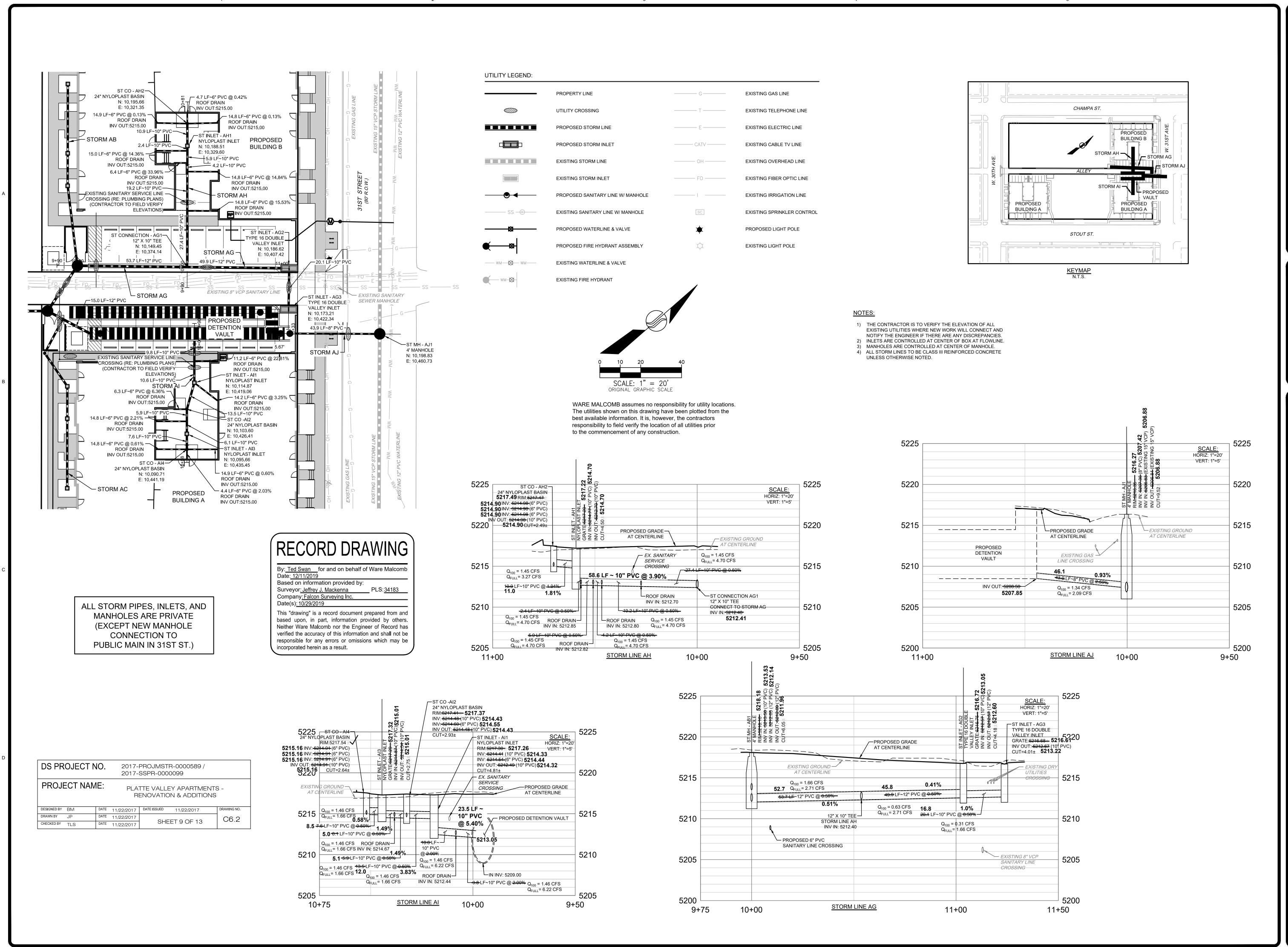
STORM P

Date: 08/02/2018

Job No.: 16090

C6.1

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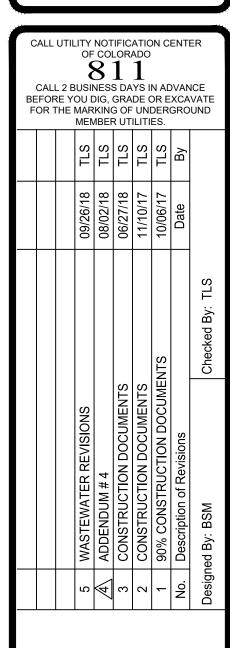


Dec 11, 2019

FOR AND ON BEHALF OF

BENCHMARK:

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PLATTE VALLEY APARTMENTS RENOVATION & ADDITIONS

STORM PLAN 8

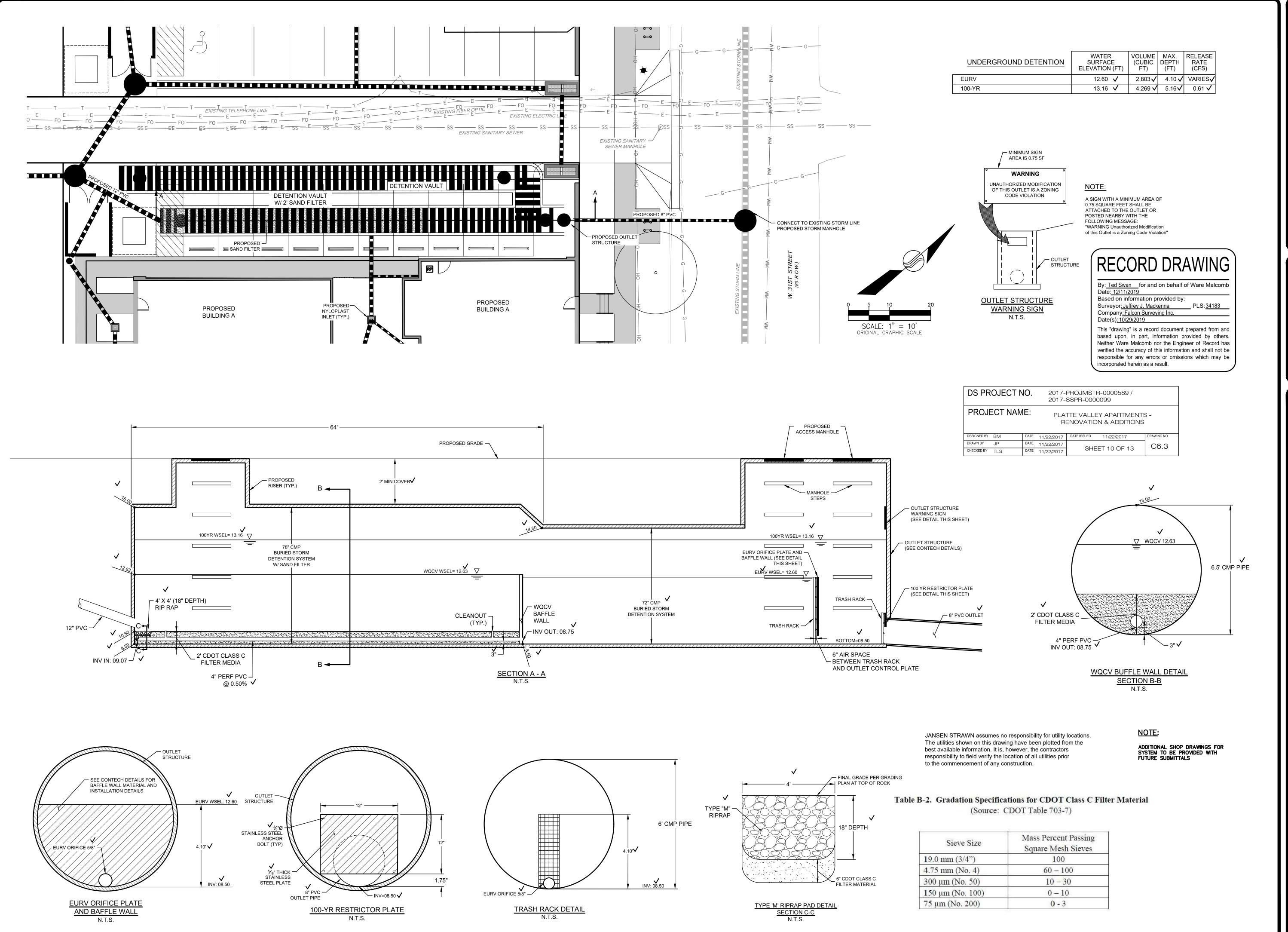
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Date: 08/02/2018

Job No.: 16090

C6.2

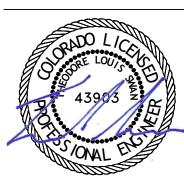
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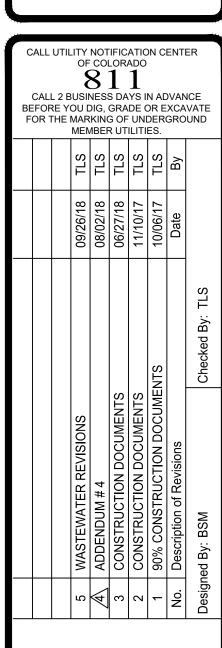
Dec 11, 2019

FOR AND ON BEHALF OF

JANSEN STRAWN CONSULTING ENGINEERS INC.

BENCHMARK:

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TTE VALLEY APARTMENT ENOVATION & ADDITIONS

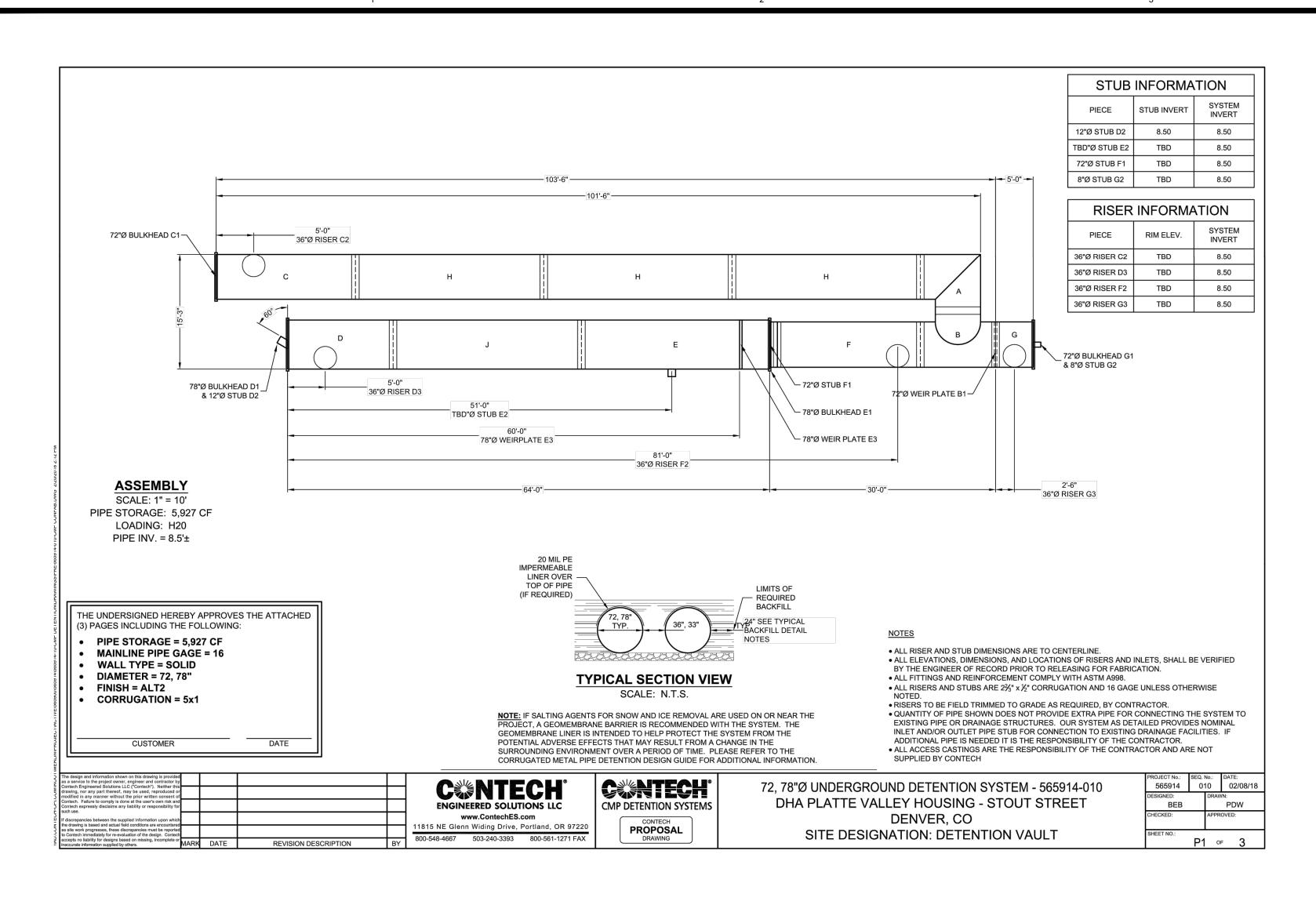
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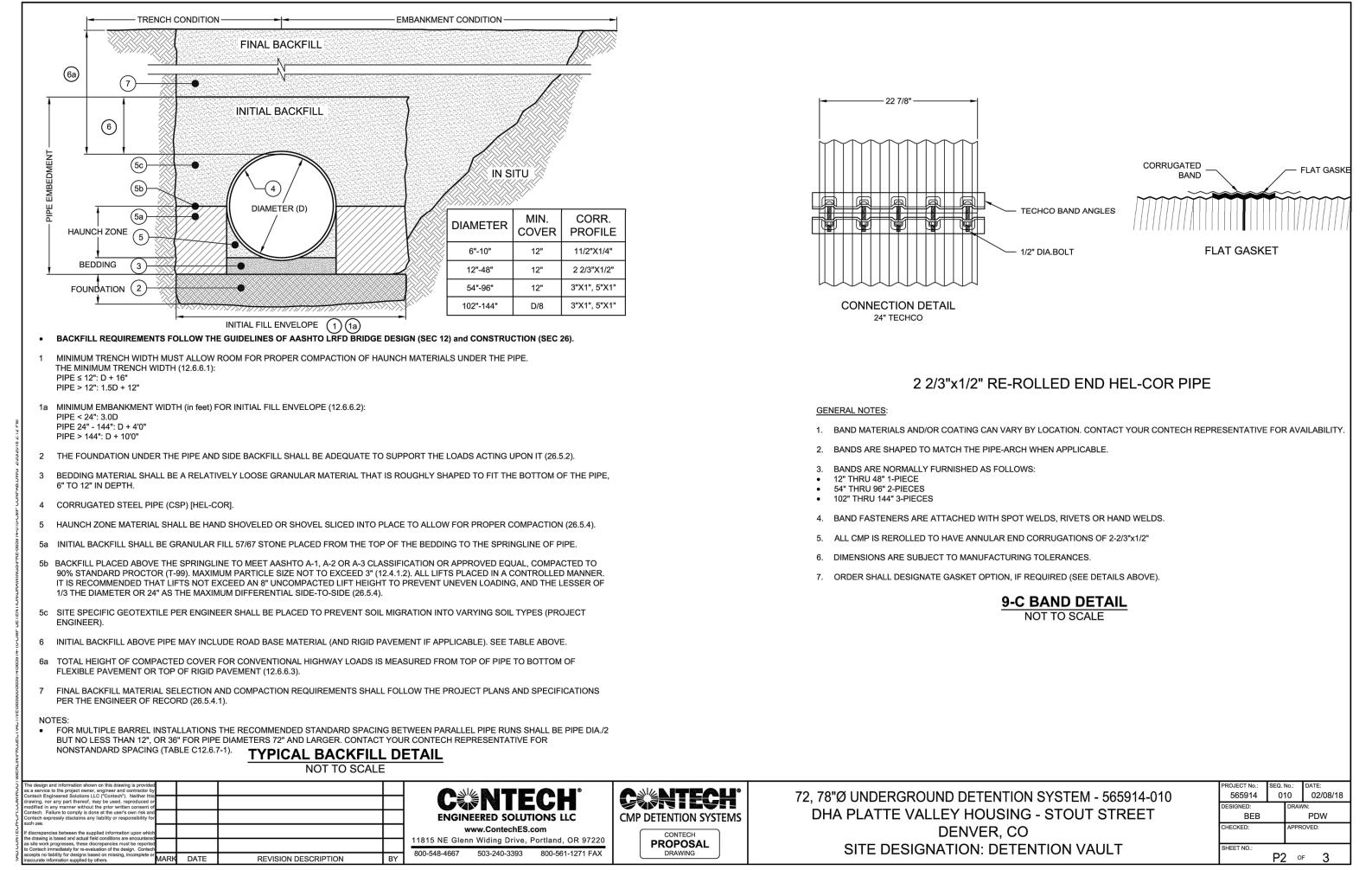
**DETENTION** 

Date: 08/02/2018

Job No.: 16090

C6.3





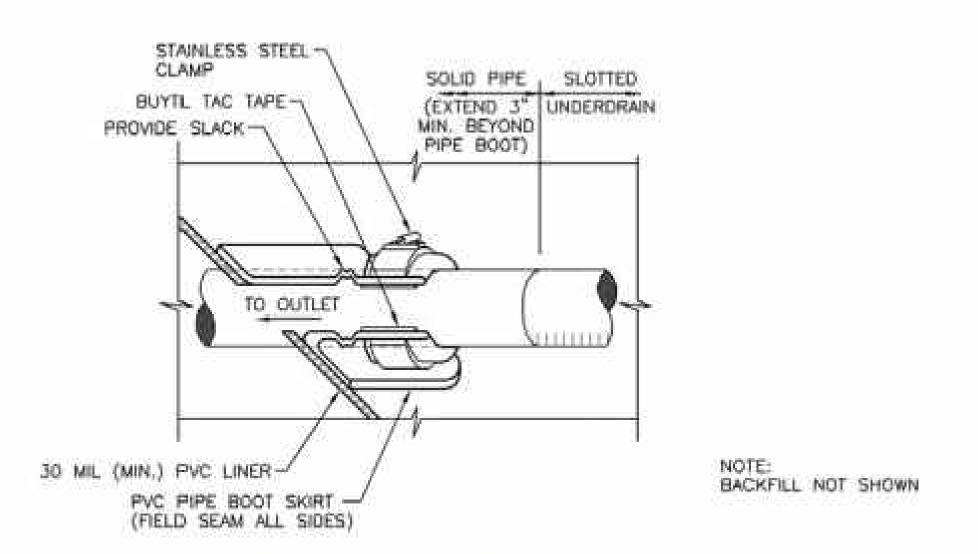
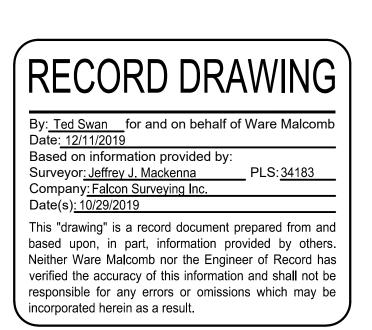
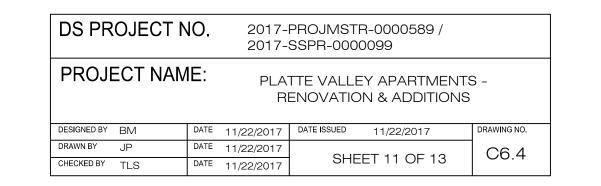


Figure SF-2. Geomembrane Liner/Underdrain Penetration Detail



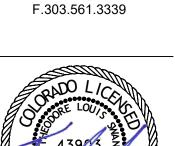




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> 45 WEST 2ND AVENUE DENVER, CO 80223

> > P.303.561.3333



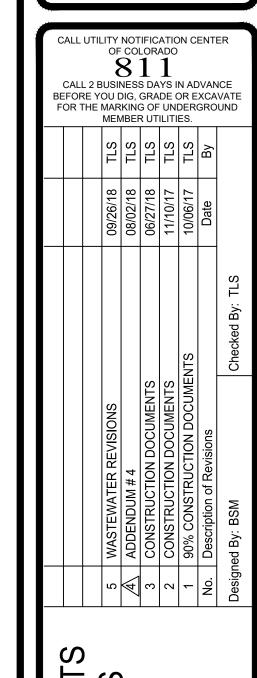
Dec 11, 2019

FOR AND ON BEHALF OF

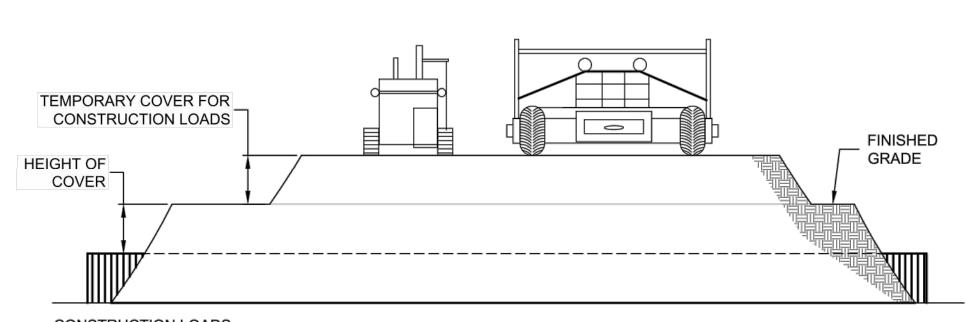
IANSEN STRAWN CONSULTING ENGINEERS. IN

BENCHMARK:

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08/02/2018 Job No.: 16090



#### **CONSTRUCTION LOADS**

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)					
	18-50	50-75	75-110	110-150		
	MINIMUM COVER (FT)					
12-42	2.0	2.5	3.0	3.0		
48-72	3.0	3.0	3.5	4.0		
78-120	3.0	3.5	4.0	4.0		
126-144	3.5	4.0	4.5	4.5		

\*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

# CONSTRUCTION LOADING DIAGRAM

MATERIAL SPECIFICATION

SCALE: N.T.S.

SCALE: N.T.S.

### SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

## **MATERIAL**

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

## <u>PIPE</u>

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

## HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

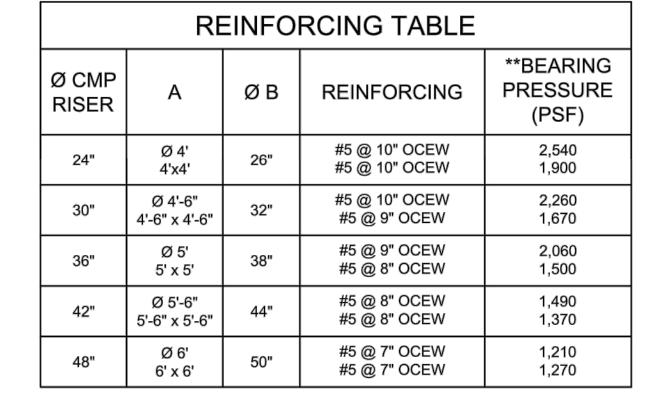
# **INSTALLATION**

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

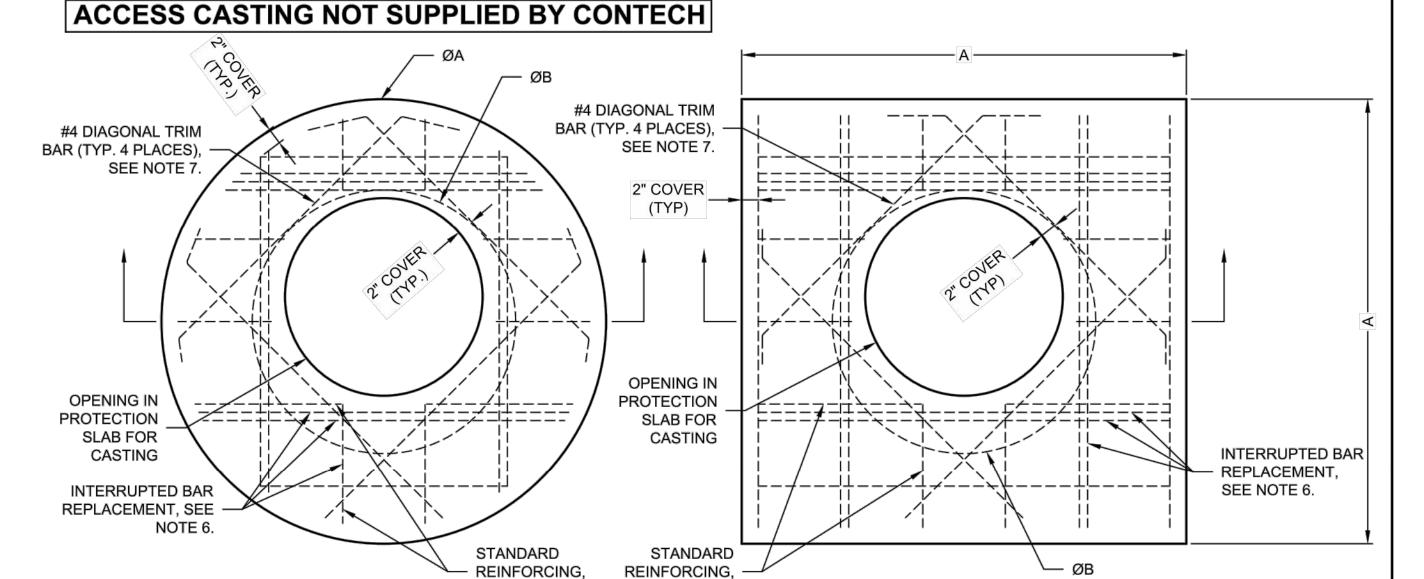
IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

# Ø36" MAX., HS-25 ACCESS CASTING WITH GRADE RINGS AS REQUIRED, TO BE PROVIDED AND INSTALLED BY CONTRACTOR. MAY BE TOP MOUNTED (AS SHOWN) OR RECESSED. PROTECTION -SLAB **GRADE** GASKET MATERIAL SUFFICIENT TO PREVENT SLAB FROM BEARING ON RISER TO BE PROVIDED BY CONTRACTOR.

# **SECTION VIEW**



#### \*\* ASSUMED SOIL BEARING CAPACITY



SEE TABLE

# ROUND OPTION PLAN VIEW

# NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.

SEE TABLE

- 2. DESIGN LOAD HS25.
- 3. EARTH COVER = 1' MAX.
- 4. CONCRETE STRENGTH = 4,000 psi
- 5. REINFORCING STEEL = ASTM A615, GRADE 60.
- 6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.

# SQUARE OPTION PLAN VIEW

- 7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
- 8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- 9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

# MANHOLE CAP DETAIL

SCALE: N.T.S.

ŞΙ	The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this					ANKRITEALI®	ANKRITEAL!	72, 78"Ø UNDERG
≦	drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of				1	CINTECH*	CWATECH	,
֚֡֝֝֝֝֝֟֝֝֝֟֝֝֟֝֓֓֓֓֓֟֝֟֝֓֓֓֓֓֟֟֓֓֓֓֓֟֟֓֓֓֓֓֟֓֓֟֓֓֟	Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for				1	ENGINEERED SOLUTIONS LLC	CMP DETENTION SYSTEMS	DHA PLATTE
5	such use.  If discrepancies between the supplied information upon which				1	www.ContechES.com	CONTECH	
ξ١	the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech	i			1	11815 NE Glenn Widing Drive, Portland, OR 97220	PROPOSAL	SITE DES
N.	to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.	MARK	DATE	REVISION DESCRIPTION	BY	800-548-4667 503-240-3393 800-561-1271 FAX	DRAWING	

RGROUND DETENTION SYSTEM - 565914-010 E VALLEY HOUSING - STOUT STREET DENVER, CO **ESIGNATION: DETENTION VAULT** 

PROJECT No.:	SEQ. No.:		DATE:
565914	0,	10	02/08/18
DESIGNED:		DRAW	/N:
BEB			PDW
CHECKED:		APPR	OVED:
SHEET NO.:			
	P3	01	<b>₹</b> 3

# RECORD DRAWING

By: Ted Swan for and on behalf of Ware Malcomb Based on information provided by: Surveyor: Jeffrey J. Mackenna PLS: 34183 Company: Falcon Surveying Inc.
Date(s): 10/29/2019

This "drawing" is a record document prepared from and based upon, in part, information provided by others. Neither Ware Malcomb nor the Engineer of Record has verified the accuracy of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

DO DDO 1507110	
DS PROJECT NO.	2017-PROJMSTR-0000589 /

2017-SSPR-0000099

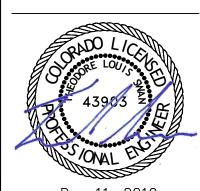
PROJECT NAME:

PLATTE VALLEY APARTMENTS -RENOVATION & ADDITIONS

DATE 11/22/2017 DATE ISSUED 11/22/2017 C6.5 SHEET 12 OF 13

JANSEN STRAWN CONSULTING ENGINEERS A WARE MALCOMB Company

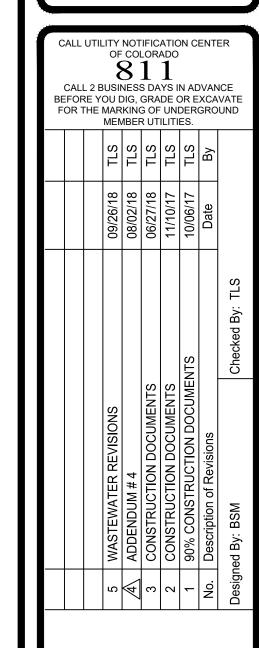
45 WEST 2ND AVENUE DENVER, CO 80223 P.303.561.3333 F.303.561.3339



FOR AND ON BEHALF OF

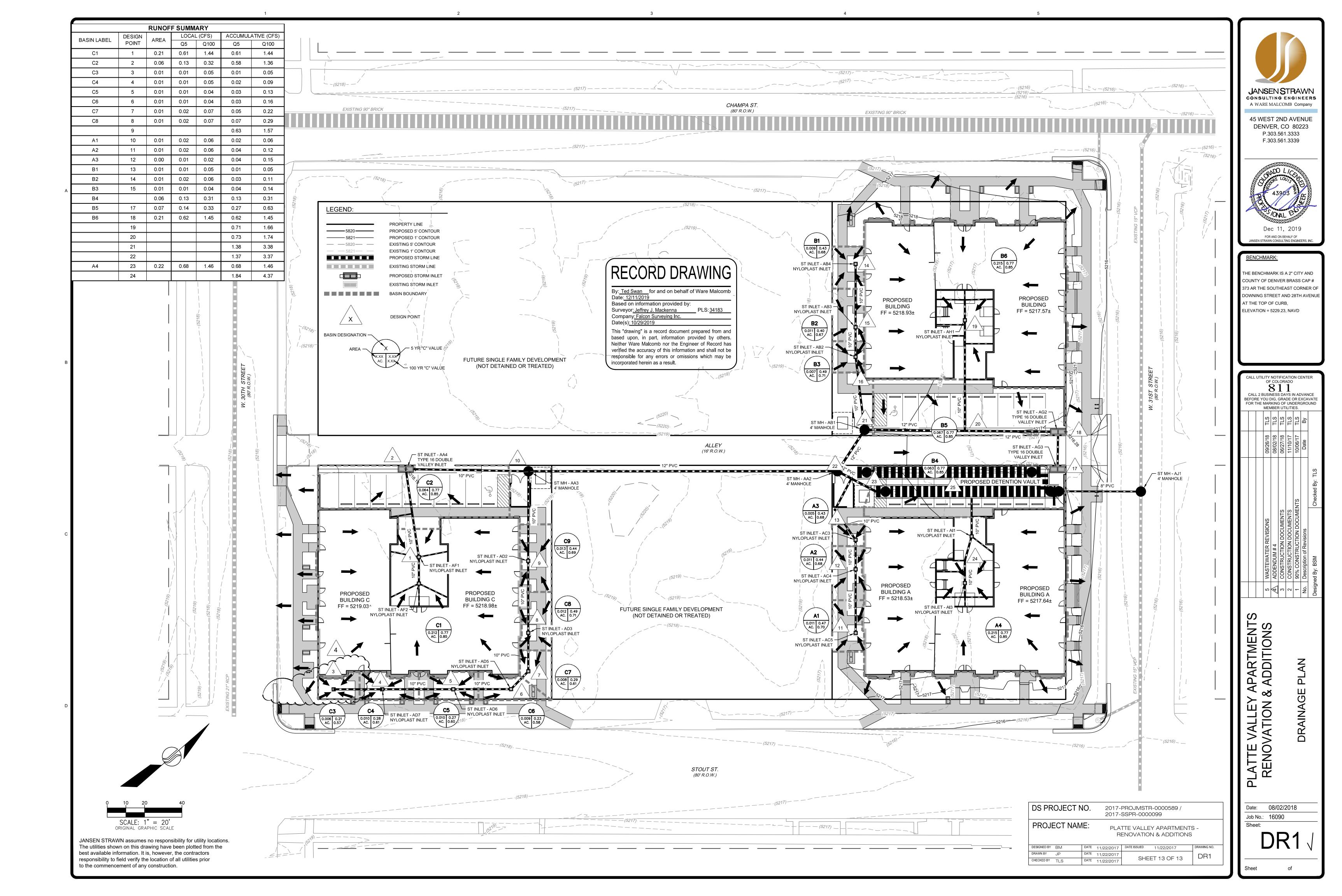
BENCHMARK:

HE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # 373 AR THE SOUTHEAST CORNER C DOWNING STREET AND 28TH AVENU AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD



APARTMENTS & ADDITIONS

08/02/2018 Job No.: 16090



# PLATTE VALLEY APARTMENTS - RENOVATION & ADDITIONS

# PUBLIC SANITARY CONSTRUCTION PLANS

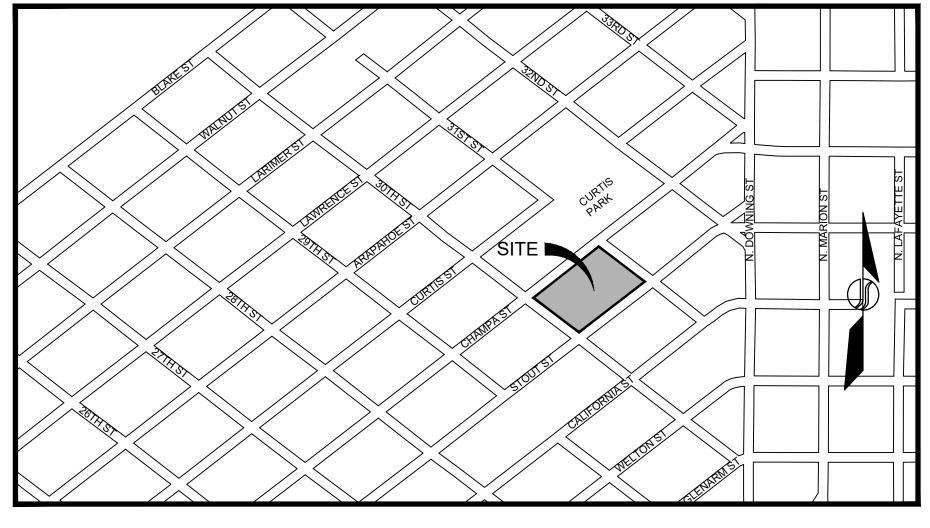
A PARCEL LOCATED IN THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY AND COUNTY OF DENVER, STATE COLORADO

### **GENERAL NOTES:**

- ALL WORK SHALL CONFORM TO CURRENT CITY AND COUNTY OF DENVER SPECIFICATIONS. IF THE CONSTRUCTION ENGINEERING INSPECTOR FINDS A PROBLEM ON THE APPROVED PLANS DURING CONSTRUCTION THAT CONFLICT WITH A CITY STANDARD, THE INSPECTOR MAY HALT CONSTRUCTION UNTIL THE ISSUE IS RESOLVED.
- THE DEVELOPER IS RESPONSIBLE FOR ANY MODIFICATIONS TO EXISTING PAVEMENT MARKINGS NECESSITATED BY THIS DEVELOPMENT. PROPOSED PAVEMENT MARKING MUST BE 3M COMPANY STAMARK 5730 OR APPROVED EQUIVALENT. ALL MARKINGS MUST BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- BY ORDINANCE FOR PROPOSED NON-RESIDENTIAL SITES HAVING AN OFF-STREET PARKING REQUIREMENT OF 15 SPACES OR MORE A NUMBER OF OFF-STREET BICYCLE PARKING SPACES SHALL BE PROVIDED EQUAL TO 5% OF THE AUTOMOBILE PARKING SPACE REQUIREMENT. EACH INVERTED "U" PROVIDED WILL COUNT AS TWO BICYCLE PARKING SPACES. DOCUMENT THESE SPACES ON THE TRANSPORTATION SITE-PLAN.
- OWNER MUST ACQUIRE A MGPEC COMPLIANT QUALITY CONTROL LABORATORY PRIOR TO STARTING CONSTRUCTION AND MUST PERFORM ALL QUALITY CONTROL TESTING WITHIN THE RIGHT-OF-WAY FOLLOWING THE MGPEC FREQUENCY FOR TESTING
- LEGAL DESCRIPTIONS FOR ADDITIONAL R.O.W. TO BE DEEDED TO THE CITY MUST BE SUBMITTED TO PWPRS
- A MONUMENT RECORD MUST BE FILED WITH THE CITY SURVEYOR'S OFFICE THROUGH PWPRS ON ALL CROSSES ON CURRHEADS. BENCHMARKS, RANGE POINTS AND SECTION CORNERS SO THEY CAN BE REPLACED AFTER CONSTRUCTION. THE MONUMENT RECORD MUST BE FILED WITH THE CITY SURVEYOR'S OFFICE BEFORE THE PLAN AND PROFILES CAN BE APPROVED. THIS MUST BE DONE BY A PROFESSIONAL LICENSED LAND SURVEYOR. THESE MONUMENTS MUST BE REPLACED BY THE DEVELOPER'S SURVEYOR BEFORE
- ALL RANGE POINTS. TIES. BENCHMARKS. OR OTHER CITY AND COUNTY OF DENVER SURVEY CONTROL POINTS. WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION. MUST BE
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE CITY AND COUNTY OF DENVER 48 HOURS 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. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR, AT HIS EXPENSE.
- IMPROVEMENTS MADE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A LICENSED AND BONDED RIGHT-OF-WAY CONTRACTOR AND REQUIRE INSPECTION BY THE CITY PRIOR TO A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) OR CERTIFICATE OF OCCUPANCY (CO) BEING ISSUED.
- 10. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PROJECT PERMITS ASSOCIATED WITH CONSTRUCTION. IMPROVEMENTS MADE WITHIN THE PUBLIC RIGHT-OF-WAY TOTALING MORE THAN \$20,000 REQUIRE A PERFORMANCE BOND. CONTACT CONSTRUCTION ENGINEERING AT (303 446-3469) AT LEAST 48 HOURS BEFORE ANY CONSTRUCTION PERMIT
- I. PERMITTEE SHALL NOTIFY THE CITY INSPECTOR: 1) TWO WORKING DAYS BEFORE COMMENCING WORK ON R.O.W.; 2) WHEN SUSPENDING OPERATIONS FOR 5 OR MORE WORKING DAYS: 3) TWO WORKING DAYS BEFORE RESUMING SUSPENDED WORK: 4) UPON COMPLETION OF WORK
- 12. CONTRACTOR SHALL MAINTAIN AT LEAST ONE COPY OF THE APPROVED PLANS, SPECIFICATIONS AND STANDARDS ON THE JOB SITE AT ALL TIMES.
- 13. CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF, NOTIFYING, COORDINATING AND SCHEDULING ALL INSPECTIONS REQUIRED FOR FINAL APPROVALS AND PROJECT
- 14. ALL WORK, INCLUDING CORRECTION WORK, IS SUBJECT TO NOTIFICATION AND INSPECTION REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT, INCLUDING PROPER TRAFFIC CONTROL DEVICES AND/OR PERSONNEL AS REQUIRED. A TRAFFIC CONTROL PLAN (TCP) IS SUBJECT TO CITY AND COUNTY OF DENVER AND/OR CDOT APPROVAL PRIOR TO COMMENCING WORK ON ROADWAY ROW. A COPY OF APPROVED TCPS MUST BE AVAILABLE ON SITE DURING WORK. TRAFFIC CONTROL TO BE IN ACCORDANCE WITH M.U.T.C.D., SECTION VI.
- 16. ALL WORK WILL BE PROPERLY BACKFILLED PRIOR TO THE END OF WORKDAY, NO OPEN HOLES ARE ALLOWED OVERNIGHT. ALL WORK IS TO BE IN ACCORDANCE WITH PERMIT REQUIREMENTS AND APPLICABLE STANDARDS.
- WHEN AN EXISTING ASPHALT STREET IS CUT. THE STREET MUST BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. THE EXISTING STREET CONDITION SHALL BE DOCUMENTED BEFORE ANY CUTS ARE MADE, PATCHING SHALL BE DONE IN CONFORMANCE WITH THE PROJECT STANDARDS. THE FINISHED PATCH SHALL BLEND SMOOTHLY INTO THE EXISTING SURFACE. ALL LARGE PATCHES SHALL BE PAVED WITH AN ASPHALT LAY-DOWN MACHINE
- 18. PATCH ASPHALT PAVING AS NECESSARY TO JOIN NEW GUTTERS WITH THE EXISTING PAVEMENT. REMOVAL AND REPLACEMENT OF ASPHALT SHALL BE PER THE LATEST
- 19. CONSTRUCTION OF ANY PORTION OF THE ROADWAY FACILITY, INCLUDING THE PAVEMENT STRUCTURE, SUBSURFACE SUPPORT, DRAINAGE, LANDSCAPING ELEMENTS, AND ALL APPURTENANT FEATURES, SHALL COMPLY WITH THE PROVISIONS OF THE CITY STANDARD SPECIFICATIONS AND STANDARD PLANS.
- 20. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES.

CITY MAY RESTRICT WORK ON R.O.W. DURING ADVERSE WEATHER CONDITIONS OR DURING PERIODS OF HIGH TRAFFIC VOLUME.

- 21. PERMITTEE SHOULD REMOVE MATERIALS AND EQUIPMENT FROM THE ROADWAY R.O.W. AT THE CLOSE OF DAILY OPERATIONS. THE TCP MUST INCLUDE PROTECTIVE MEASURES WHERE MATERIALS AND EQUIPMENT MAY BE STORED ON R.O.W, BUT ENSURE FIVE FEET OF PEDESTRIAN CLEARANCE ON SIDEWALKS.
- 22. NO WORK SHALL BE PERMITTED AT NIGHT OR ON SATURDAYS, SUNDAYS, AND HOLIDAYS WITHOUT PRIOR AUTHORIZATIONS OR UNLESS OTHERWISE SPECIFIED IN THIS PERMIT.
- 23. PERMITTEE SHALL NOT SPRAY, CUT, OR TRIM TREES OR OTHER LANDSCAPING ELEMENTS WITHIN ROADWAY ROW, UNLESS SUCH WORK IS OTHERWISE SPECIFIED IN THIS PERMIT OR CLEARLY INDICATED ON THE APPROVED PLANS.
- 24. NO CLEATED OR TRACKED EQUIPMENT MAY WORK IN OR MOVE OVER PAVED SURFACES WITHOUT MATS.
- 25. MATERIAL REMOVED FROM ANY PORTION OF THE ROADWAY PRISM MUST BE REPLACED IN LIKE KIND WITH EQUAL OR BETTER COMPACTION. NO SEGREGATION OF MATERIAL WILL
- 26. PRIOR TO FINAL ACCEPTANCE, ALL DISTURBED PORTIONS OF ROADWAY RIGHT OF WAY SHALL BE CLEANED UP AND RESTORED TO THEIR ORIGINAL CONDITION, SUBJECT TO CITY
- 27. SEEDING, SODDING, AND PLANTING SHALL BE AS SPECIFIED OR OTHERWISE APPROVED BY CITY, CONSTRUCTION, MAINTENANCE, AND WATERING REQUIREMENTS SHALL CONFORM WITH THE CITY STANDARD SPECIFICATIONS. WHERE LANDSCAPE RESTORATION MUST BE DELAYED DUE TO SEASONAL REQUIREMENTS, SUCH WORK MAY BE
- 28. IN THE EVENT THAT AN EMERGENCY REPAIR TO EXISTING FACILITIES IS NECESSARY, THE CONSTRUCTION ENGINEERING ROW DISTRICT INSPECTOR SHALL IMMEDIATELY BE NOTIFIED OF POSSIBLE TRAFFIC HAZARDS. EMERGENCY PROCEDURES SHALL BE COORDINATED BEFOREHAND, WHERE POSSIBLE, NO WORK WILL BE ALLOWED UNTIL NOTIFICATION IS RECEIVED. EMERGENCY TELEPHONE NOTIFICATION MUST BE FOLLOWED UP WITH A LETTER A SOON AS POSSIBLE.
- 29. ANY EXISTING CURB, GUTTER, DRIVEWAYS, AND SIDEWALK THAT IS FAILING OR DAMAGED MUST BE REPAIRED OR REPLACED AT THE DIRECTION OF CONSTRUCTION
- 30. PROTECTION AND REPLACEMENT OF STREET IMPROVEMENTS ARE THE RESPONSIBILITY OF THE OWNER UNTIL THESE IMPROVEMENTS ARE FULLY COMPLETED AND ACCEPTED BY
- 31. CONSTRUCTION SHALL COMMENCE WITHIN ONE YEAR OF APPROVAL OR RESUBMITTAL IS REQUIRED. CONSTRUCTION SHALL BE COMPLETED WITHIN TWO YEARS OF DES
- 32. DES APPROVAL DOES NOT CONSTITUTE A NOTICE TO PROCEED. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING APPROPRIATE CONSTRUCTION PERMITS.
- 33. UNLESS STREETSCAPE HAS BEEN APPROVED, THE DEVELOPER SHALL LANDSCAPE ALL RIGHT-OF-WAY WITH SOD AND TREES. NO LOOSE MATERIAL (I.E., ROCK, BARK, GRAVEL. ETC.) SHALL BE ALLOWED. DECORATIVE CONCRETE OR LOW GROWING PLANT MATERIAL MAY BE ALLOWED ONLY WITH THE SPECIFIC APPROVAL OF DES. TREES SHALL BE PRE-APPROVED BY THE CITY FORESTER'S OFFICE AND SHALL BE A MINIMUM OF 20' FROM PROPERTY CORNERS AT INTERSECTIONS, 25' FROM STREET LIGHTS AND 10' FROM EDGE
- 34. ANY RELOCATION OF UTILITIES SUCH AS POWER POLES AND FIRE HYDRANTS THAT LIE WITHIN THE PUBLIC RIGHT-OF-WAY WILL BE THE COST OF THE DEVELOPER AND SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY OR AGENCY
- 35. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC RIGHT-OF-WAY, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.
- 36. THE DEVELOPER SHALL PAY XCEL ENERGY FOR THE CONSTRUCTION AND/OR RELOCATION OF STREETLIGHTS WITHIN THE PUBLIC RIGHT-OF-WAY. THE STREETLIGHTS SHALL BE CONSTRUCTED AND/OR RELOCATED TO THE CURRENT CITY STANDARDS AND COORDINATED THROUGH XCEL ENERGY.
- 37. THE OWNER/OPERATOR SHALL HIRE AN MGPEC-COMPLIANT LABORATORY FOR ALL QUALITY CONTROL TESTING OF MATERIALS IN THE ROW. THE CITY AND COUNTY OF DENVER WILL ONLY PROVIDE QUALITY ASSURANCE.
- 38. PLEASE REFER TO 2017-EC-0000217 FOR EROSION CONTROL PLANS AND REQUIREMENTS.
- 39. PLEASE REFER TO 2017-SUDP-0004700, 2017-SUDP-0004701 AND 2017-SUDP-0004702 FOR SANITARY CONNECTIONS.



#### PW STORM & SANITARY STANDARD NOTES:

- NO WORK IS AUTHORIZED WITHOUT A PRE-CONSTRUCTION MEETING AT WHICH YOU WILL RECEIVE A COPY OF THE CITY AND COUNTY OF DENVER STAMPED AND APPROVED SET OF PLANS. PLEASE CALL 303-446-3722 TO SCHEDULE A PRECONSTRUCTION MEETING AFTER YOUR PLANS HAVE BEEN APPROVED
- PLIBLIC WORKS, WASTEWATER MANAGEMENT DIVISION'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS FOR SANITARY & STORM SEWERS APPLY TO THIS WORK, PLIBLIC WORKS WASTEWATER MANAGEMENT DIVISION'S STANDARD DETAILS (DRAWINGS), MOST RECENT EDITION, SHALL BE USED AS A MINIMUM. THE TECHNICAL SPECIFICATIONS ARE AVAILABLE FROM DS - SITE ENGINEERING. BOTH SETS MUST BE IN POSSESSION OF THE CONTRACTOR AT THE PRE-CONSTRUCTION CONFERENCE AND MUST REMAIN ON THE JOB SITE AT ALL TIMES DURING
- 3. THE STANDARD DETAILS CAN BE VIEWED AT: WASTEWATER MANAGEMENT DIVISION STANDARD DETAILS 2015.
- CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY RULES AND REGULATIONS. 5. ONE SET OF THE APPROVED SEWER CONSTRUCTION DRAWINGS MUST BE ON-SITE AT ALL TIMES OF CONSTRUCTION
- 6. ALL SEWER PIPES SHALL BE INSTALLED WITH CLASS B BEDDING AS A MINIMUM
- ANY MODIFICATIONS. ADJUSTMENTS. CONSTRUCTION OR RECONSTRUCTION OF PUBLIC WORKS; WASTEWATER DIVISION FACILITIES MUST BE INSPECTED BY A PW CONSTRUCTION ENGINEERING INSPECTOR. PLEASE SCHEDULE AN APPOINTMENT AT 303-446-3722 A MINIMUM OF 48 HOURS IN ADVANCE OF THE WORK TO SCHEDULE AN INSPECTOR.
- PIPE MATERIAL, FITTINGS, TRENCHING, BEDDING, CONNECTIONS, AND SEWER INSTALLATION MUST BE INSPECTED BY A PW CONSTRUCTION ENGINEERING INSPECTOR PRIOR TO ANY TRENCH BACKFILL. PLEASE SCHEDULE AN APPOINTMENT AT 303-446-3722 A MINIMUM OF 48 HOURS IN ADVANCE OF THE WORK TO SCHEDULE AN INSPECTOR. MONITORING OF THE PROJECT BY PW SHALL BE FOR THE PURPOSE OF ASSURING GENERAL COMPLIANCE WITH THE APPROVED PLANS, STANDARDS, DETAILS, AND SPECIFICATIONS AS WELL AS THE RULES & REGULATIONS. STORM AND SANITARY INSPECTIONS SHALL NOT TAKE THE PLACE OF CONSTRUCTION INSPECTION AND MATERIALS TESTING, WHICH IS THE OWNER'S RESPONSIBILITY
- SANITARY SEWER PIPES SHALL BE PVC AND CONFORM TO: ASTM D3034 SDR 35 FOR SIZES 8 INCHES TO 15 INCHES IN DIAMETER (SOLID WALL), ASTM F789 FOR 18 INCHES (SOLID WALL), ASTM F679 FOR SIZES 18 TO 36 INCHES (SOLID WALL), ASTM F949 FOR SIZES 8 TO 36 INCHES (PVC PROFILE WALL), ASTM F794 FOR SIZES 8 TO 48 INCHES (PROFILE WALL), OR ASTM F1803 FOR SIZES 18 TO 60 INCHES (CLOSED PROFILE GRAVITY PIPE).
- 10. ANY QUESTIONS REGARDING STORM OR SANITARY FACILITIES THAT ARISE DURING CONSTRUCTION SHOULD BE BROUGHT TO THE ATTENTION OF PW CONSTRUCTION ENGINEERING AT (303)
- 11. BACKFILL IN PUBLIC RIGHT OF WAY MUST MEET THE REQUIREMENTS OF DENVER PUBLIC WORKS DEPARTMENT. A STREET CUT PERMIT AND INSPECTION OF A BACKFILL AND PAVEMENT REPAIR BY PUBLIC WORKS IS REQUIRED FOR ALL WORK IN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR AND/OR DEVELOPER IS ADVISED TO CONTACT CONSTRUCTION ENGINEERING ROW INSPECTION AT 303- 446-3469 OR PWPO AT 303-446-3759 TO OBTAIN INFORMATION REGARDING FEES AND PROCEDURES FOR OBTAINING THE PAGE 3 OF 6 H:\WEBSITE FOR DS\RESIDENTIAL AND COMMERCIAL MULTI-RESIDENTIAL\WORD DOC\DS STORM AND SANITARY GENERAL GUIDELINES 10202015.DOCX REQUIRED PERMIT(S). CONTRACTOR MUST OBTAIN A STREET CUT PERMIT AND NOTIFY THE DISTRICT INSPECTOR AT (303) 446-3469, 48-HOURS PRIOR TO START OF JOB. COMPACTION TESTING IS REQUIRED.
- 12. THE CONTRACTOR PERFORMING WORK ON ANY PUBLIC OR PRIVATE STORM SEWER FACILITY OR APPURTENANCE MUST BE PROPERLY TRADE LICENSED AS A COMPANY AND HAVE A LICENSED PLUMBER, DRAINLAYER SUPERVISOR OR SEWER CONTRACTOR ON SITE DURING THE WORK
- 13. ACCESS MUST BE MAINTAINED FOR ALL SEWER MANHOLES DURING CONSTRUCTION. ANY DESIGN CHANGES TO NEW OR EXISTING PUBLIC STORM OR SANITARY SEWER MUST INCLUDE PERMANENT ACCESS TO THE PUBLIC STORM AND SANITARY SEWER MANHOLES AND COULD REQUIRE ROLL-OVER CURB, COMMERCIAL DRIVE, REINFORCED CONCRETE SIDEWALK, RITTER RINGS OR CONCRETE PAD. MINIMUM ACCESS TO EACH MANHOLE IS A 20' WIDE LANE FROM THE NEAREST PUBLIC RIGHT OF WAY, CENTERED AT THE MANHOLE INCLUDING A 10' RADIUS AROUND THE MANHOLE AND 22.0' VERTICAL CLEARANCE.
- 14. THE CONNECTION OF A NEW SANITARY/STORM SEWER TO AN EXISTING MANHOLE MAY REQUIRE MANHOLE RECONSTRUCTION AT THE DISCRETION OF THE PW CONSTRUCTION ENGINEERING INSPECTOR OR THE PW CONSTRUCTION ENGINEERING ENGINEER.
- 15. CHANGES IN THE ELEVATION OF AN EXISTING BRICK MANHOLE MAY REQUIRE THE USE OF A PRE-CAST CONCRETE MANHOLE OR MANHOLE RECONSTRUCTION AT THE DISCRETION OF THE PW CONSTRUCTION ENGINEERING INSPECTOR AND/OR PW CONSTRUCTION ENGINEERING ENGINEER.
- 16. CHANGES IN ELEVATION OR MODIFICATION TO EXISTING INLETS MAY REQUIRE RECONSTRUCTION AT THE DISCRETION OF THE PW CONSTRUCTION ENGINEERING INSPECTOR OR ENGINEER. 17. THE CONTRACTOR SHALL BE AWARE THAT WHEN DEBRIS IS DROPPED INTO PUBLIC MANHOLES AND OTHER PUBLIC STRUCTURES, THE CONTRACTOR IS TO
- THIS TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS CAUSING BACKUP INTO PRIVATE PROPERTIES. IF IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES
- 18. THE CONTRACTOR SHALL MAKE SURE THAT ALL MANHOLES AND OTHER STRUCTURES ARE BUILT TO FINISHED GRADE.
- 19. NO TREES SHALL BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN TEN (10) FEET OF ANY PUBLIC MANHOLES, PIPES OR INLETS.
- 20. "AS-BUILT" ELECTRONIC SUBMITTAL OR PRINTS ARE TO BE SUBMITTED TO DEVELOPMENT SERVICES AT COMPLETION OF THE PROJECT. "AS-BUILT" DRAWINGS ARE TO BE REPRODUCIBLE COPIES (OR ORIGINALS) OF THE APPROVED CONSTRUCTION DRAWINGS, ANY FIFLD CHANGES ARE TO BE NOTED. THE DRAWINGS WILL STATE "AS-BUILT" IN LARGE BLOCK LETTERS. THE "AS-BUILT" ELECTRONIC SUBMITTAL OR PRINTS ARE TO BE SIGNED, DATED AND STAMPED BY A COLORADO REGISTERED ENGINEER.
- 21. AS-BUILT FIELD NOTES (IF REQUESTED), FROM WHICH THE AS-BUILT DRAWINGS ARE PREPARED, ARE TO BE PROVIDED AND STAMPED/SIGNED AND DATED BY THE COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR. THESE NOTES WILL INCLUDE THE STATIONING OF ANY BUILDING SEWER STUBS INSTALLED.
- 22. UPON COMPLETION OF SITE GRADING AND SEWER CONSTRUCTION, THE OWNER OR DEVELOPER SHALL BE RESPONSIBLE FOR FURNISHING DEVELOPMENT SERVICES WITH A CERTIFICATE OF INSPECTION PREPARED BY THE COLORADO REGISTERED ENGINEER WHO PERFORMED OR SUPERVISED CONSTRUCTION INSPECTION, CERTIFYING THAT: A) A CONSTRUCTION INSPECTOR WAS ON THE JOB SITE AT ALL TIMES SEWER OR DRAINAGE FACILITY WORK WAS PERFORMED,
- B) ALL STORM AND SANITARY SEWER FACILITIES, SITE GRADING, DETENTION POND GRADING AND OUTLET WORKS (IF ANY) WERE CONSTRUCTED IN COMPLIANCE WITH PLANS AND SPECIFICATIONS APPROVED BY THE DEPARTMENT OF PUBLIC WORKS
- C) THE AS-BUILT DRAWINGS INCLUDED ACCURATELY DEPICT THE FINAL INSTALLATION OF THE STORM DRAINAGE AND/OR SEWER SYSTEM. THIS CERTIFICATION SHALL BE REQUIRED FOR ALL STORM AND SANITARY SEWER FACILITIES IN ADDITION TO ANY INSPECTIONS MADE BY THE DIVISION OR THE DEPARTMENT OF PUBLIC WORKS.

# DENVER WATER DEPARTMENT NOTE:

ALL PERSONS AND ENTITIES INVOLVED IN THIS PROJECT SHALL HAVE THE RESPONSIBILITY TO TAKE WHATEVER STEPS NECESSARY TO PROTECT ALL WATER FACILITIES. IF ANY WATER FACILITY CANNOT BE ADEQUATELY PROTECTED, THEN SAID WATER FACILITIES SHALL BE RELOCATED OR REMOVED IN ACCORDANCE WITH DENVER WATER DEPARTMENT REQUIREMENTS.

#### C3.0 SANITARY PLAN & PROFILE

SHEET INDEX:

C1.1 WASTEWATER COVER SHEET & NOTES

# RECORD DRAWING

By: Ted Swan for and on behalf of Ware Malcomb

Based on information provided by Company: Falcon Surveying Inc.

This "drawing" is a record document prepared from and based upon, in part, information provided by others. Neither Ware Malcomb nor the Engineer of Record has verified the accuracy of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

#### ENGINEER'S STATEMENT OF CERTIFICATION:

THESE CONSTRUCTION DRAWINGS FOR PLATTE VALLEY APARTMENTS - RENOVATION & ADDITIONS WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF THE STORM DRAINAGE AND SANITARY CONSTRUCTION DETAILS AND TECHNICAL SPECIFICATIONS AND THE STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA OF THE CITY AND COUNTY OF DENVER.

TED L. SWAN LICENSED PROFESSIONAL ENGINEER STATE OF COLORADO NO. 43903

FOR: JANSEN STRAWN CONSULTING ENGINEERS A WARE MALCOMB COMPANY

NO WORK IS AUTHORIZED WITHOUT A PRE-CONSTRUCTION MEETING AT WHICH YOU WILL RECEIVE A COPY OF THE CITY AND COUNTY OF DENVER STAMPED AND APPROVED

SET OF PLANS

PLEASE CALL 303-446-3722 TO SCHEDULE A PRE-CONSTRUCTION MEETING AFTER YOUR PLANS HAVE **BEEN APPROVED** 

City and County of Denver **Development of Public Works Development Engineering Services** 

Checked for General Compliance with applicable Denver Criteria, Rules, Regulations and Standards.

**APPROVED** (if validly signed)

This approval becomes void if construction is not started within one (1) year of the approval date.

Development Engineering Services (Note: Signature in Print)

> APPROVED AS TO FORM **ENGINEERING CALCULATIONS, DRAWINGS AND DESIGN** ADEQUACY ARE ACCEPTED BASED UPON THE PROJECT ENGINEER'S ATTACHED SEAL OF REGISTRATION.

THIS APPROVAL IS FOR PUBLIC SANITARY IMPROVEMENTS

CALL THE UTILITY NOTIFICATION CENTER OF COLORADO AT

TWO (2) BUSINESS DAYS IN ADVANCE BEFORE DIGGING, GRADING OR EXCAVATING FOR MARKING OF MEMBER'S **UNDERGROUND UTILITIES** 

(Project Engineer's Seal, Signature and Date)

DES PROJECT NO. 2019-PROJMSTR-0000589 /

PROJECT NAME:

2019-SSPR-0000080

PLATTE VALLEY APARTMENTS -**RENOVATION & ADDITIONS** 

DATE 05/01/2019 DATE ISSUED 05/01/2019 SHEET 1 OF 2 CHECKED BY TLS DATE 05/01/2019

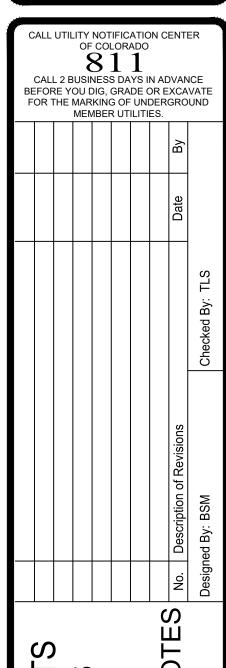
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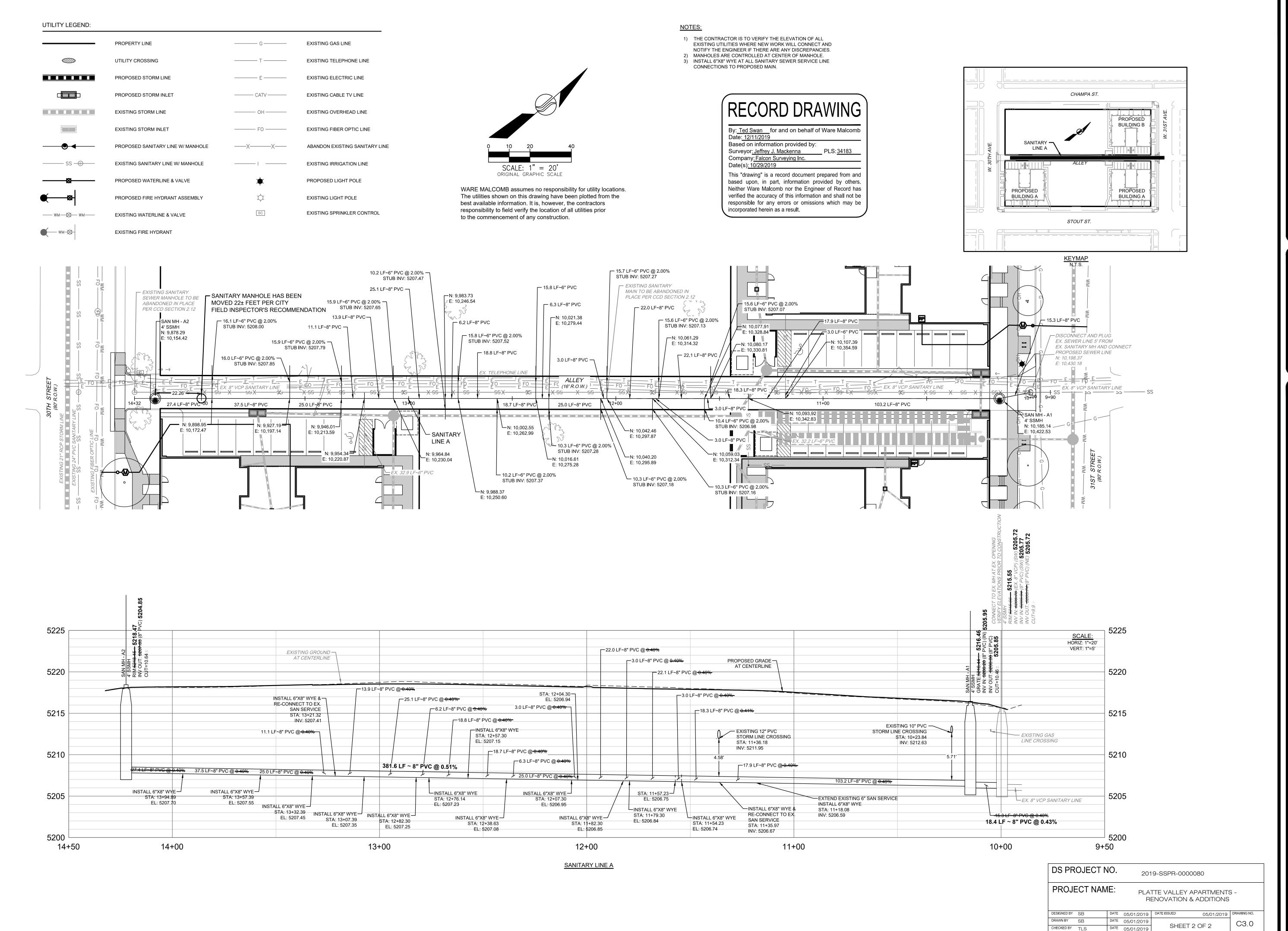
BENCHMARK

FOR AND ON BEHALF OF

HE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # 373 AR THE SOUTHEAST CORNER ( DOWNING STREET AND 28TH AVEN AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD



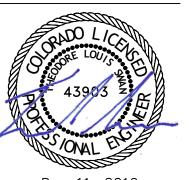
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JANSEN STRAWN
CONSULTING ENGINEERS
A WARE MALCOMB Company

45 WEST 2ND AVENUE DENVER, CO 80223 P.303.561.3333 F.303.561.3339



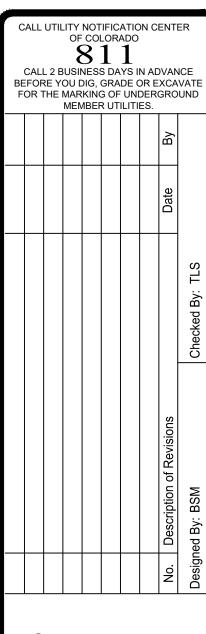
Dec 11, 2019

FOR AND ON BEHALF OF

IANSEN STRAWN CONSULTING ENGINEERS. IN

## BENCHMARK:

THE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # 373 AR THE SOUTHEAST CORNER OF DOWNING STREET AND 28TH AVENUE AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD

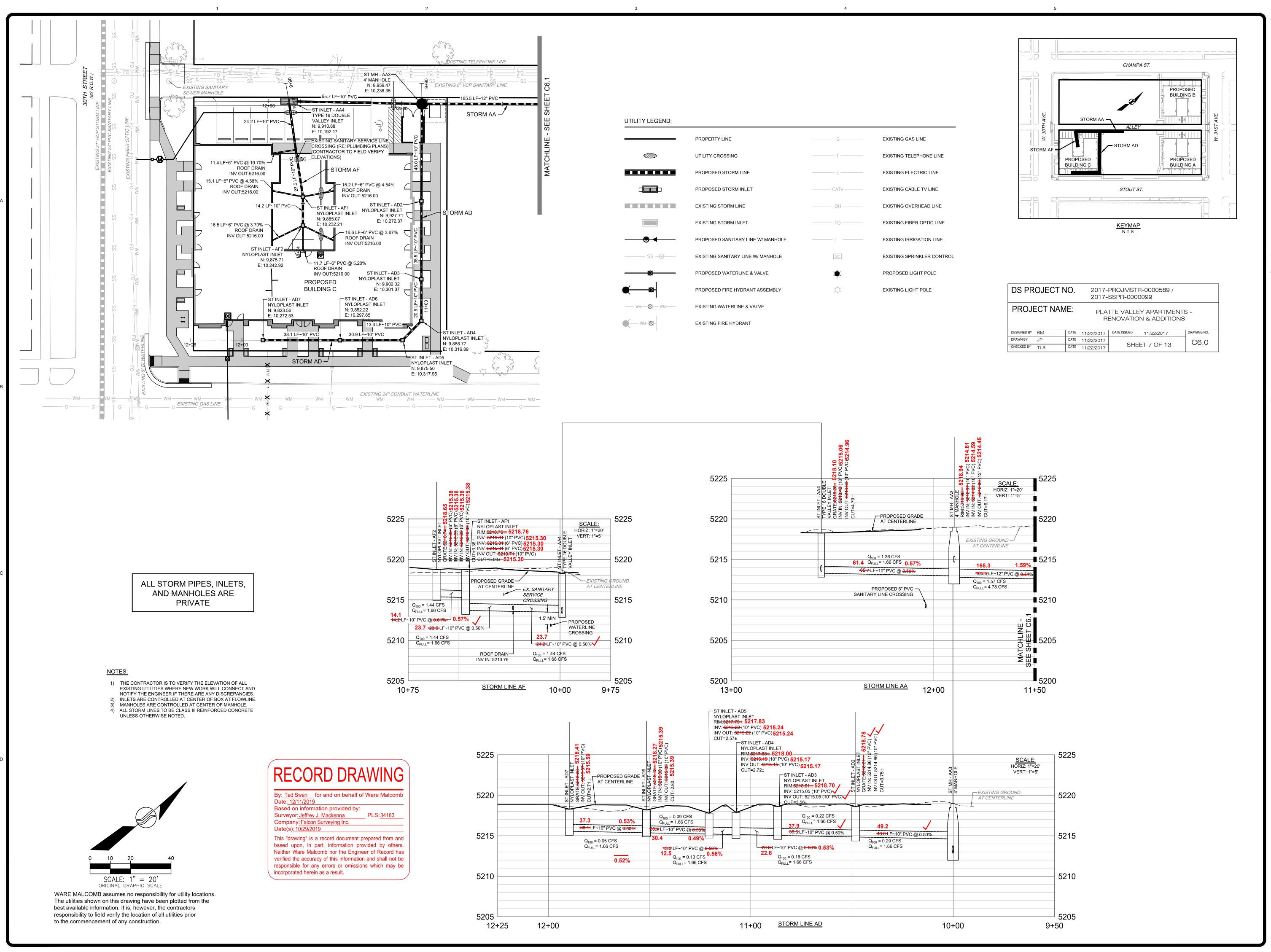


TTE VALLEY APARTMENTS ENOVATION & ADDITIONS

Date: 04/29/19

Job No.: 16090 Sheet:

C3.0



JANSEN STRAWN

JANSEN STRAWN
CONSULTING ENGINEERS
A WARE MALCOMB Company

45 WEST 2ND AVENUE DENVER, CO 80223 P.303.561.3333 F.303.561.3339



Apr 16, 2020

FOR AND ON BEHALF OF

JANSEN STRAWN CONSULTING ENGINEERS INC.

## BENCHMARK:

THE BENCHMARK IS A 2" CITY AND COUNTY OF DENVER BRASS CAP # 373 AR THE SOUTHEAST CORNER OF DOWNING STREET AND 28TH AVENUE AT THE TOP OF CURB, ELEVATION = 5229.23, NAVD

5 WASTEWATER REVISIONS
5 WASTEWATER REVISIONS
6 WASTEWATER REVISIONS
7 A ADDENDUM # 4

3 CONSTRUCTION DOCUMENTS
7 CONSTRUCTION DOCUMENTS
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EY APARTMENTS ON & ADDITIONS

STORM PLAN & PRO

08/02/2018

Date: 08/02/2018

Job No.: 16090

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