NM1-63

Construction Documents Mud Drying Pad

5/18/18

Griswold, Jim, EMNRD

From: Charles Fiedler < CFiedler@team-psc.com>

Sent: Tuesday, May 15, 2018 11:28 AM

To: Griswold, Jim, EMNRD

Cc: Kevin Mills; Zach Ramos; Nevin Bannister (nbannister@oilfieldwaterlogistics.com)

Subject: OWL Surface Waste Management Facility-Process Area Construction Plans

Attachments: 0118-17-OWL_MUD_MGMT-BID_SET.pdf

Importance: High

Good Morning Jim,

We are providing the attached Construction Plans for the Drilling Mud Drying Pad component of the Process Area for this facility in fulfillment of the Additional Facility-Specific Conditions 6-C, which requires that at least 30 days prior to construction of specific components at this facility the operator must furnish OCD with a complete set of construction drawings. This component of the facility is currently being bid for construction and as soon as the construction schedule is established, a major milestone schedule for construction will be provided.

Please let us know if you have any questions with this submission.

Charles

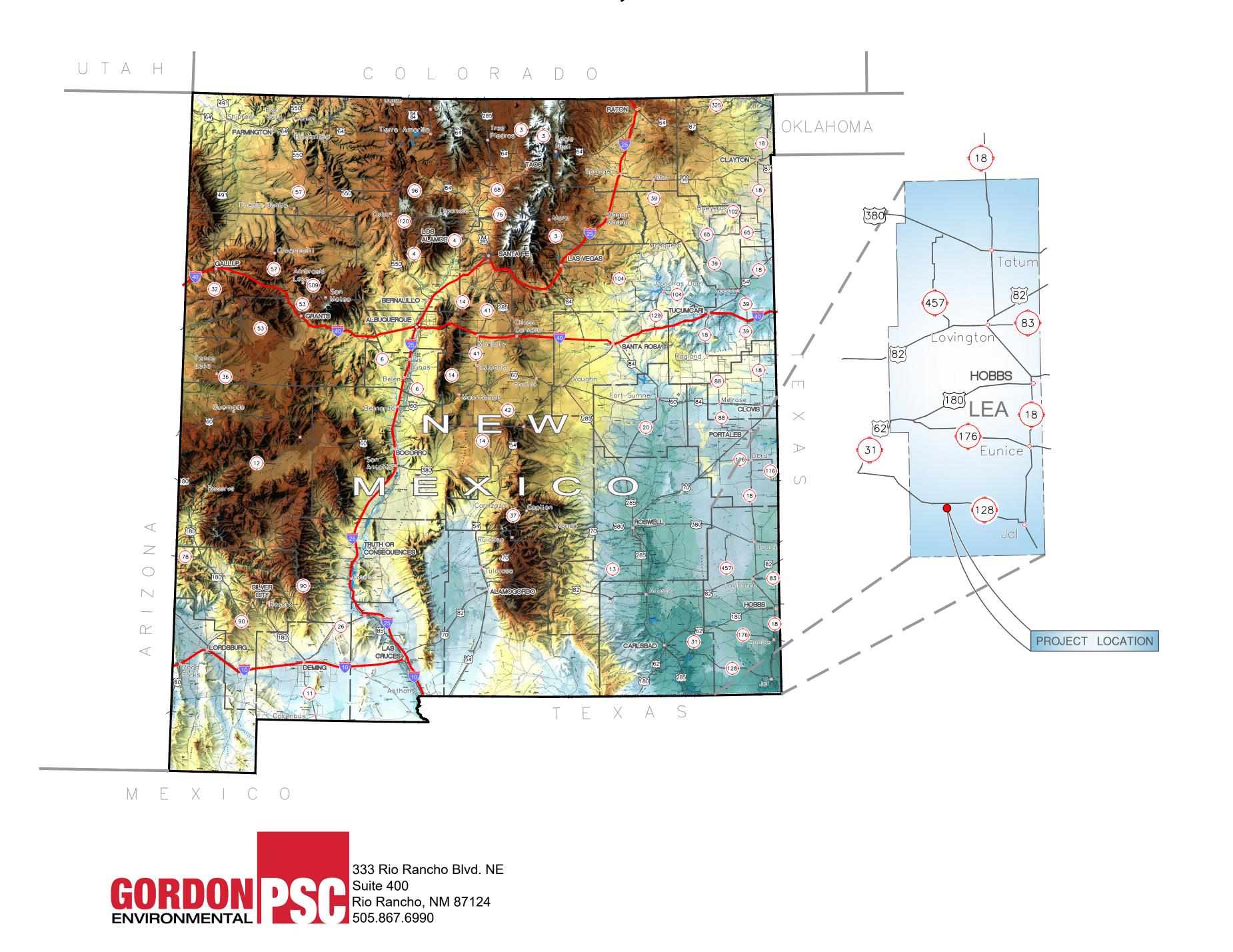
Charles W. Fiedler, P.E., LEED AP Associate | Senior Practice Leader

GORDON ENVIRONMENTAL | PSC 333 Rio Rancho Blvd. NE, Suite 400 Rio Rancho, New Mexico 87124 505-867-6990 | team-psc.com

^{*}Please note our new address!

OWL LANDFILL SERVICES, LLC SITE DEVELOPMENT & MUD DRYING PAD CONSTRUCTION PLANS

LEA COUNTY, NEW MEXICO



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FOUNDATION DETAILS



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OWL LANDFILL SERVICES, LLC.

SITE DEVELOPMENT **& MUD MANAGEMENT** PAD CONSTRUCTION **PLANS**

LEA COUNTY, NEW MEXICO

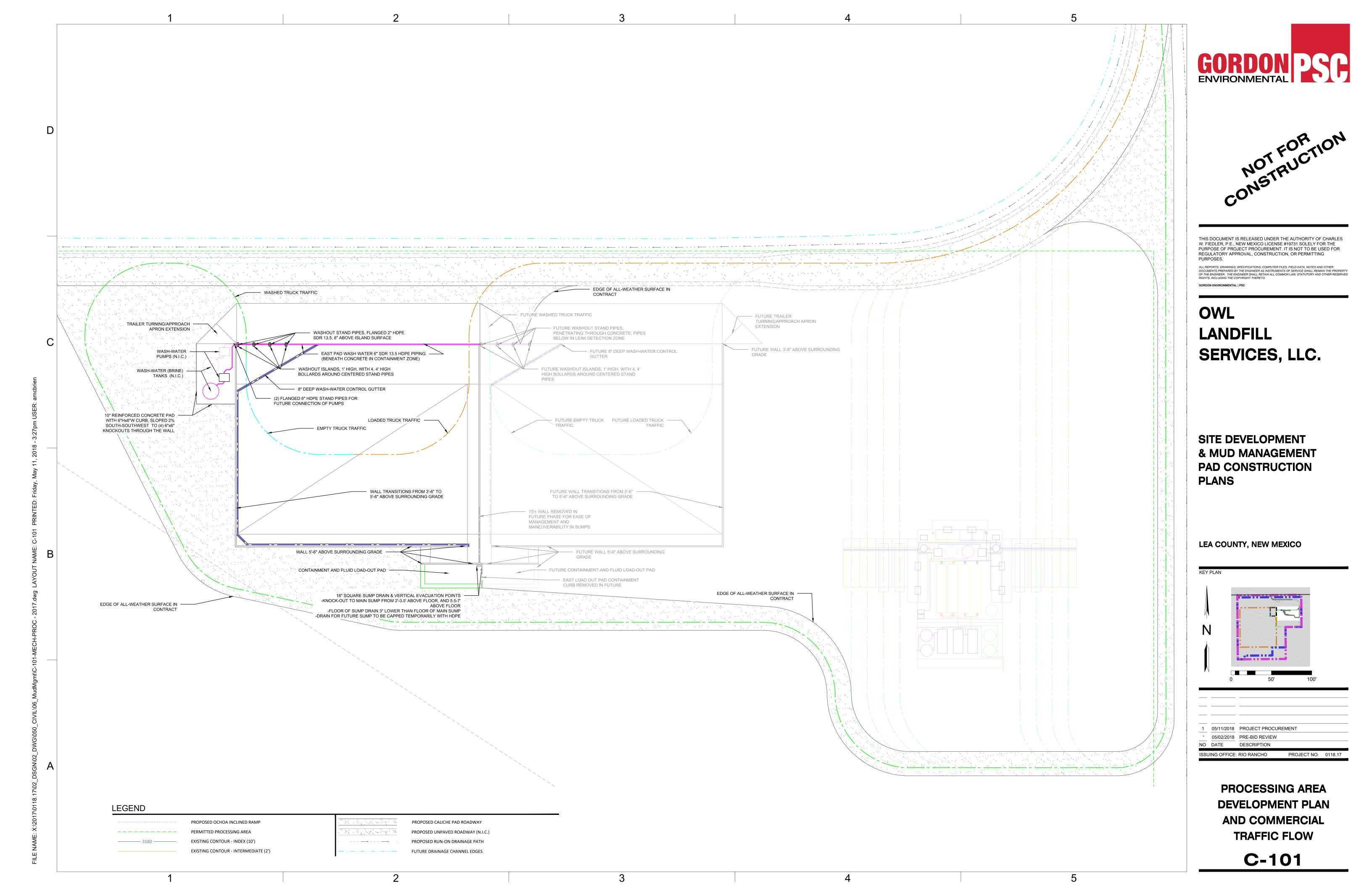
1 05/11/2018 PROJECT PROCUREMENT 05/02/2018 PRE-BID REVIEW NO DATE DESCRIPTION ISSUING OFFICE: RIO RANCHO

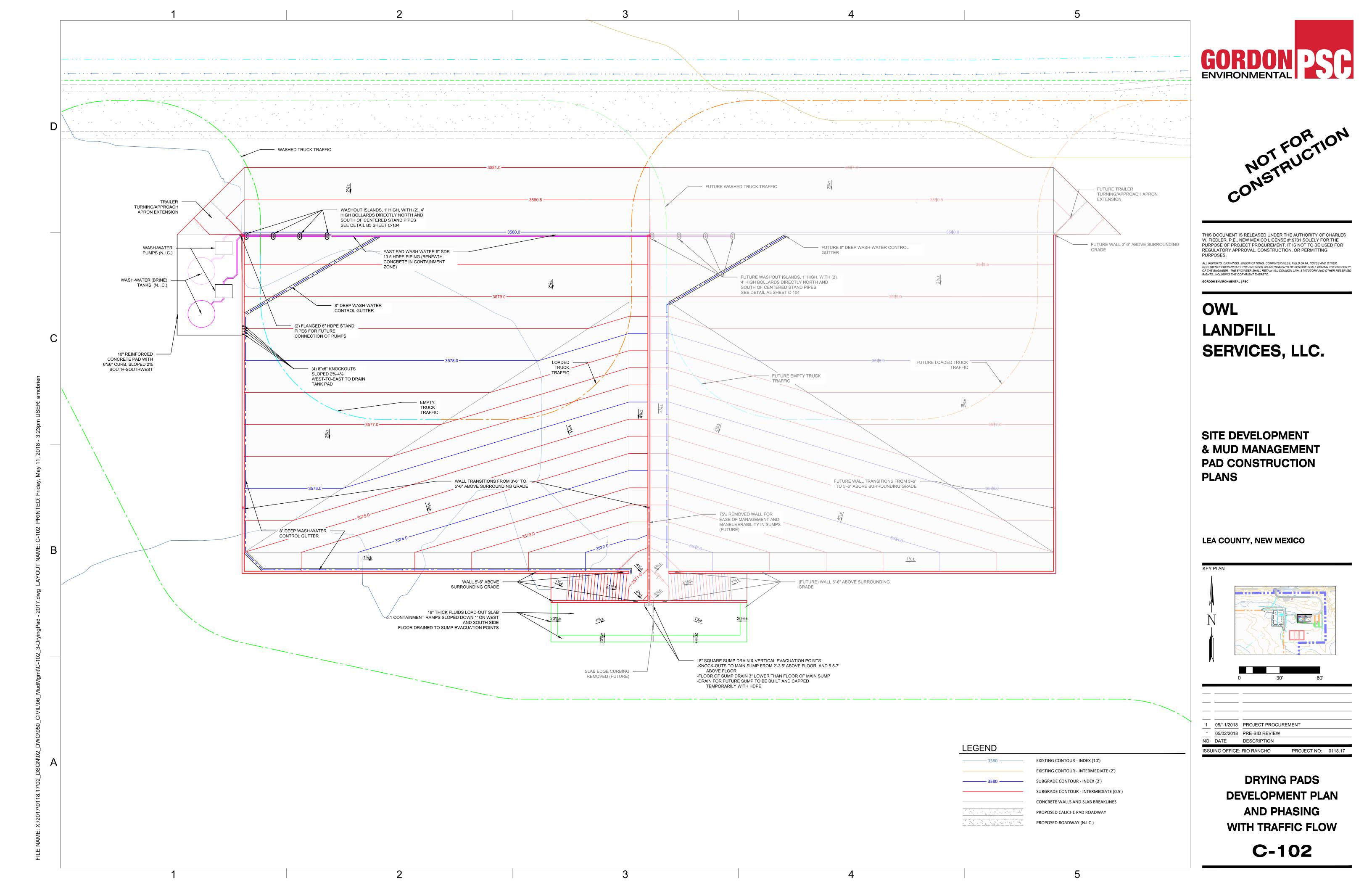
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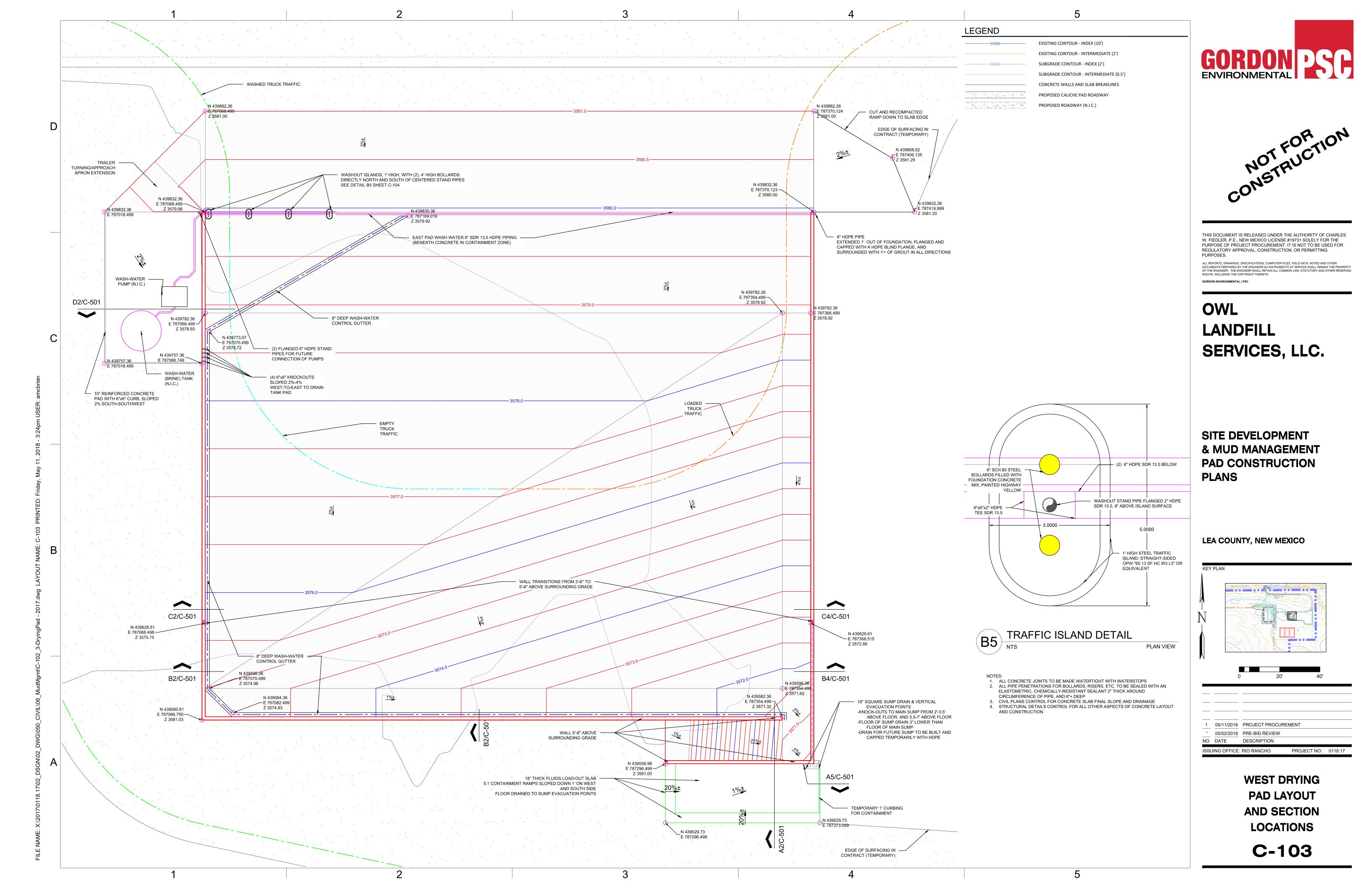
COVER SHEET AND INDEX

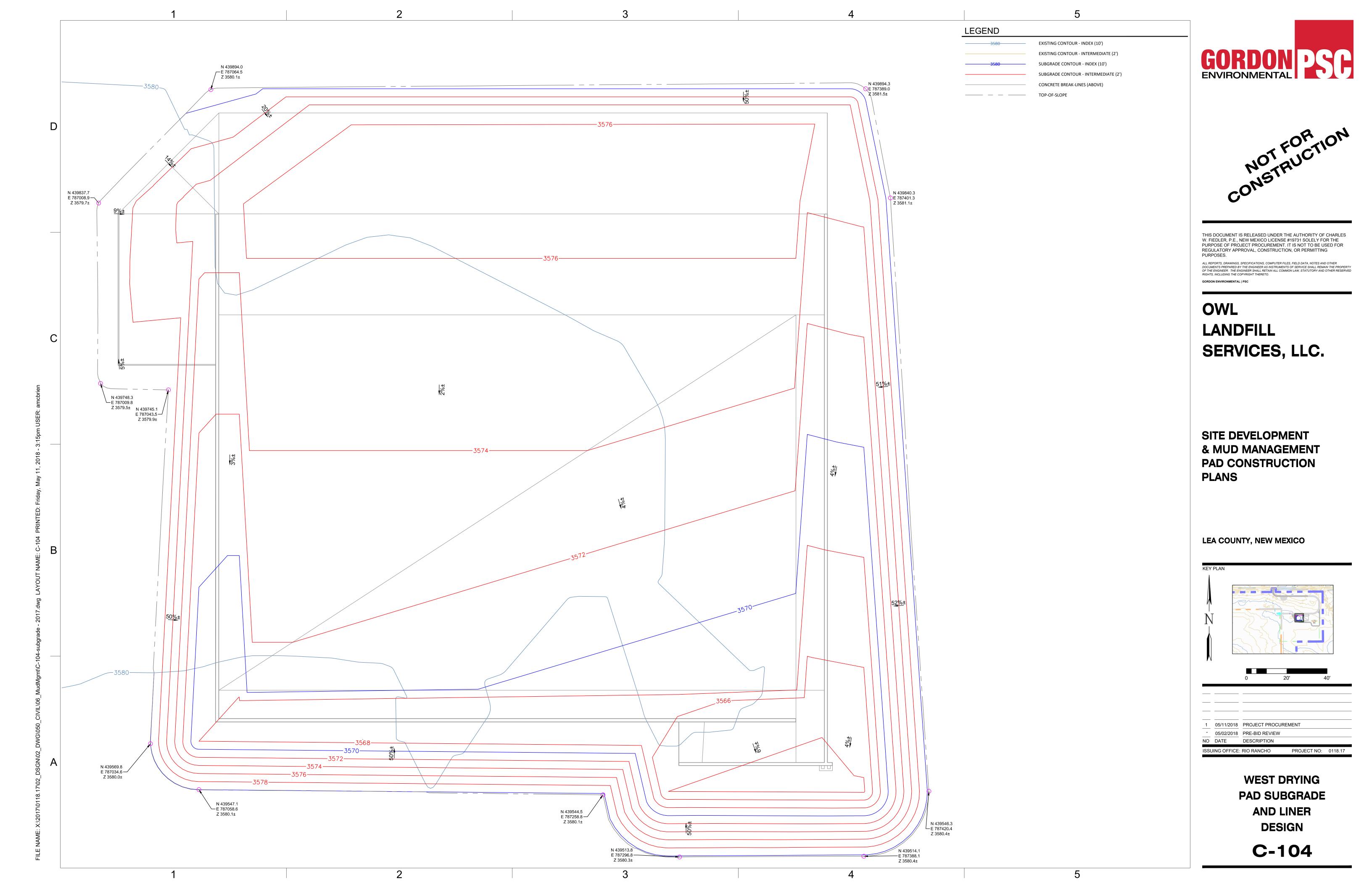
G-001

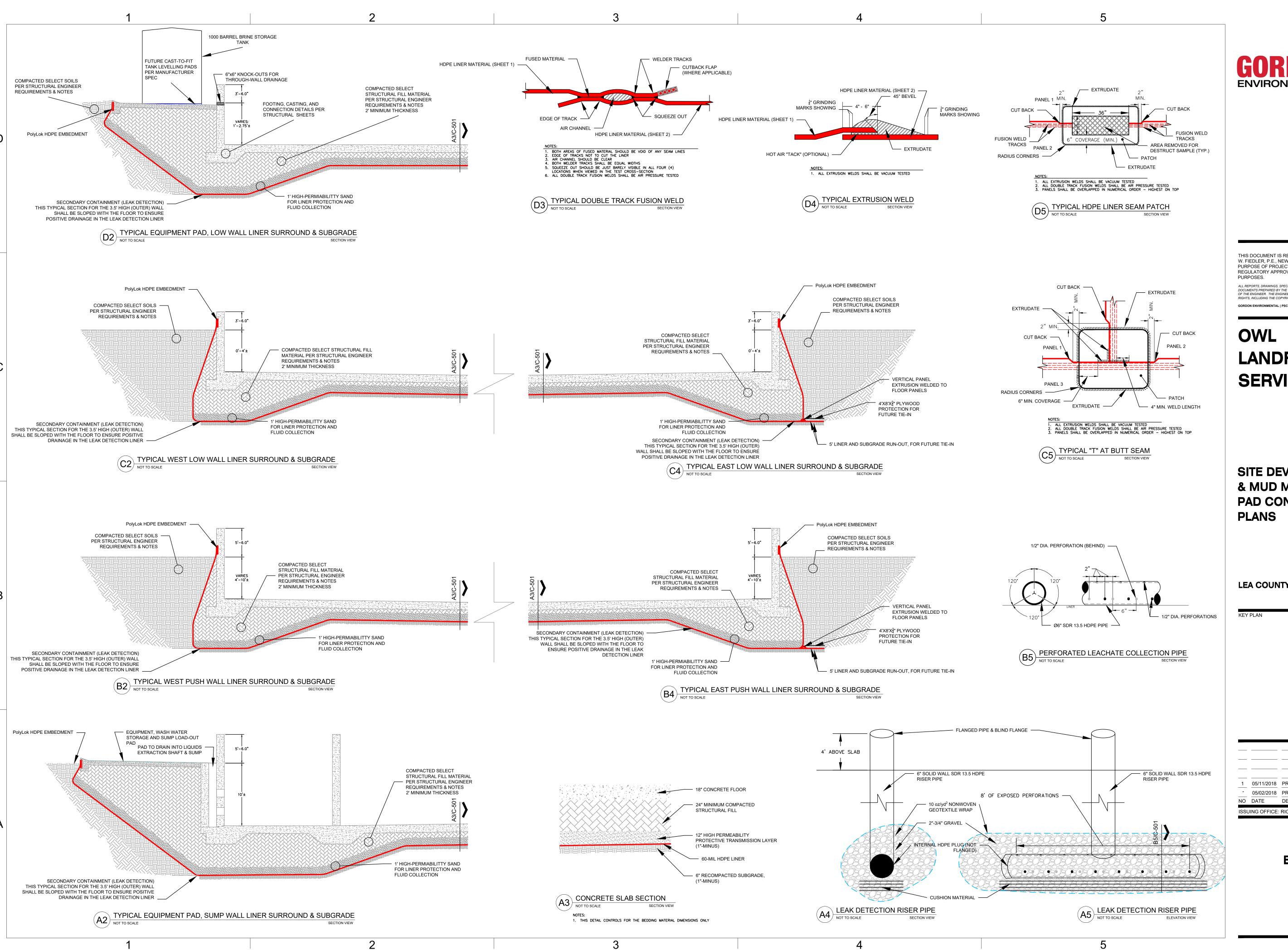
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ALL REPORTS, DRAWINGS, SPECIFICATIONS, COMPUTER FILES, FIELD DATA, NOTES AND OTHER DOCUMENTS PREPARED BY THE ENGINEER AS INSTRUMENTS OF SERVICE SHALL REMAIN THE PROPERTY OF THE ENGINEER. THE ENGINEER SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THERETO.

OWL LANDFILL SERVICES, LLC.

SITE DEVELOPMENT **& MUD MANAGEMENT** PAD CONSTRUCTION **PLANS**

LEA COUNTY, NEW MEXICO

1 05/11/2018 PROJECT PROCUREMENT 05/02/2018 PRE-BID REVIEW NO DATE DESCRIPTION ISSUING OFFICE: RIO RANCHO PROJECT NO: 0118.17

> LINER & **ENGINEERING DETAILS**

C-501

GENERAL REQUIREMENTS

- REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS FOR MATERIALS, PRODUCTS, HANDLING, AND INSTALLATION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE REACHES ITS FINAL CONDITION, AND ALL DIAPHRAGMS, BRACES, AND/OR SHEAR WALLS ARE INSTALLED.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS FOR NEW AND EXISTING STRUCTURES, AS NECESSARY TO COMPLETE THE PROJECT. NO PORTION OF THE PROJECT WHILE UNDER CONSTRUCTION IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTOR'S TEMPORARY SUPPORTS AND BRACES. CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS
- APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED ON DETAILS, TITLES, OR
- ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE
- THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS, AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- REFER TO CIVIL CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION RELATING TO THE COORDINATION OF STRUCTURAL COMPONENTS INCLUDING, BUT NOT LIMITED TO:
 - SITING OF BUILDING GRID LINES WITH RESPECT TO CITY BENCHMARKS
 - SITE PREPARATION BACKFILLING MATERIALS AND REQUIREMENTS PAVING AND SITE ELEMENTS OUTSIDE OF BUILDING ENVELOPE NEW AND EXISTING SITE UTILITIES
- STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON VIBRATING ISOLATORS.

CODES

ALL FABRICATION, ERECTION, AND DESIGN OF STRUCTURAL MEMBERS SHALL MEET THE MINIMUM STANDARDS OF THE FOLLOWING CODES:

- A. AMERICAN CONCRETE INSTITUTE (ACI): ACI 318-11 AND OTHER APPLICABLE ACI STANDARDS
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) STEEL CONSTRUCTION MANUAL - THIRTEENTH EDITION AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) - STANDARD 7-10
- CONCRETE REINFORCING STEEL INSTITUTE (CRSI) ASTM SPECIFICATIONS

DESIGN LOADS

ALL APPLICABLE DEAD LOADS LIVE LOADS: FLOOR LIVE LOAD: 150 PSF COLLATERAL LOAD: 20 PSF LATERAL SOIL PRESSURE: 75 PCF SEISMIC LOADS: PER IBC 2012 **BUILDING CATEGORY:** SEISMIC IMPORTANCE FACTOR, Is: 1.25 MAPPED SPECTRAL RESPONSE ACCELERATION, Ss: 19.1%g MAPPED SPECTRAL RESPONSE ACCELERATION, S1: 4.4%g SITE CLASS: SPECTRAL RESPONSE COEFFICIENT, Sos: 0.203

SPECTRAL RESPONSE COEFFICIENT, SD1:

MATERIAL PROPERTIES

CONCRETE REINFORCING STEEL **ASTM A615 GR 60**

SEISMIC DESIGN CATEGORY:

FOUNDATIONS

- ALL FOOTINGS ARE DESIGNED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 3500 POUNDS PER SQUARE FOOT AT A MINIMUM DEPTH OF 3 FEET BELOW EXISTING GRADE.
- ALL EXTERIOR GRADE BEAMS SHALL BE CHAMFERED 3/4 INCH ON THE EXPOSED EXTERIOR CORNER.

SITE PLANNING AND FILL NOTES

- PROPER CONSTRUCTION DRAINAGE SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING FOUNDATION CONSTRUCTION. PONDING OF WATER AT THE SITE SHOULD BE AVOIDED DURING ALL PHASES OF CONSTRUCTION.
- SCARIFY SITE TO MINIMUM DEPTH OF 6 INCHES TO REMOVE ALL EXISTING VEGETATION. REMOVAL SHALL EXTEND 5 FOOT BEYOND BUILDING AREAS AND 2 FOOT BEYOND PAVING AREAS.
- SCARIFY AND RECOMPACT TOP 6 INCHES OF SUBGRADE TO MINIMUM OF 95 PERCENT OF ASTM D698 OR ASTM D1557 MAXIMUM DENSITY. REMOVE AND REPLACE WEAK OR SOFT AREAS WITH GRANULAR FILL OR BASE MATERIALS.
- BUILDING PAD SHALL BE RAISED TO PROPER ELEVATION USING SATISFACTORY SOILS COMPACTED IN 8 INCH MAXIMUM LOOSE LIFTS TO 95 PERCENT OF ASTM D698 MAXIMUM DENSITY, OR AS PRESCRIBED BY THE GEOTECHNICAL ENGINEER. MOISTURE SHALL BE CONTROLLED TO WITHIN 2 PERCENT OF OPTIMUM PER D698 DURING COMPACTION OPERATIONS. FOOTINGS MAY BE BACK FILLED USING SATISFACTORY SOILS AS

SPECIFIED, COMPACTED IN 6 INCH MAXIMUM LOOSE LIFTS TO 95 PERCENT

- OF MAXIMUM DENSITY PER ASTM D698. UTILITY TRENCHES WITHIN BUILDING OR PAVING AREAS SHALL BE FILLED PER THE ABOVE CRITERIA.
- TREE STUMPS, IF ENCOUNTERED, SHOULD BE COMPLETELY REMOVED AND BACK FILLED PER THE ABOVE CRITERIA.

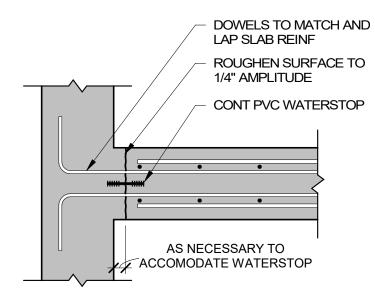
CONCRETE

- ALL EXTERIOR CONCRETE, INCLUDING WALKS AND CURBS OUTSIDE THE
- BUILDING LINE, SHALL BE AIR ENTRAINED. PROVIDE STANDARD BAR CHAIRS AND SPACERS FOR REINFORCING AT A MAXIMUM OF 4 FOOT CENTERS FOR ALL SLABS AND BEAMS.
- C. LAP CONTINUOUS UNSCHEDULED REINFORCING BARS AS FOLLOWS BOTTOM BARS IN MEMBERS SUPPORTED BY COLUMNS OR FOOTINGS - 12
- INCH AT SUPPORTS ONLY: ALL OTHERS (36) BAR DIAMETERS MINIMUM. ALL HORIZONTAL REINFORCING IN CONTINUOUS FOOTINGS AND WALLS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP A
- MINIMUM OF (30) BAR DIAMETERS, OR 24 INCH MINIMUM. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE BEAM, FOOTING, WALL, OR SLAB POURS. ALL CONSTRUCTION JOINTS SHALL BE MADE WITHIN THE CENTER THIRD OF SPANS WITH VERTICAL BULKHEADS. THE LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
- WHERE CONCRETE PILASTERS, COLUMNS, WALLS, OR BEAMS ARE TO BE LEFT EXPOSED AND DO NOT ABUT OTHER MATERIALS, EXTERNAL CORNERS SHALL BE CHAMFERED 3/4 INCH.
- WHERE SLEEVES ARE REQUIRED THROUGH BEAMS OR JOISTS, VERTICAL OR HORIZONTAL PIPE SLEEVES SHALL BE PROVIDED AS SPECIFIED UNDER THE MECHANICAL AND ELECTRICAL SECTIONS OF THE SPECIFICATION. LOCATION OF ALL SUCH SLEEVES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. WHERE NECESSARY FOR STRUCTURAL REASONS, BEAMS OR JOISTS SHALL BE WIDENED TO COMPENSATE FOR THE LOSS OF CROSS SECTION DUE TO THE SLEEVE. ADD ONE EXTRA TIE OR STIRRUP ON BOTH SIDES OF EACH SLEEVE. WHERE TWO OR MORE PIPE SLEEVES ARE REQUIRED THROUGH CONCRETE SLABS, A DISTANCE EQUAL TO THREE TIMES THE LARGER SLEEVE DIAMETER SHALL BE PROVIDED BETWEEN SLEEVES.

FLOOR SLABS

0.07

- CURING SLABS ON GRADE SLABS ON GRADE SHALL BE WET CURED FOR 7 DAYS AFTER CONCRETE PLACEMENT. WET CURING SHALL BEGIN IMMEDIATELY AFTER FINAL FINISHING OF SLAB SURFACE AND SHALL CONSIST OF CONTINUOUS MISTING BY SPRINKLER OR WET BURLAP,
- CONTRACTOR SHALL APPLY APPROVED CURING COMPOUND. SPACING OF JOINTS SHALL BE 60'-0" MAXIMUM. CONTRACTOR SHALL SUBMIT PROPOSED JOINT LAYOUT FOR APPROVAL.



D4) SLAB JOINT AT WALLS/BEAMS

<u>PLAN</u>

T/15

STARTER WALL TO

ACCOMMODATE WATERSTOP

CONSTRUCTION JOINTS IN

(B4) SLABS AT CONTAINMENT AREAS

PROVIDE CONSTRUCTION JOINT AT 60'-0" MAX.

WALL JOINTS SHALL CORRESPOND TO SLAB JOINT

WALL CONSTRUCTION JOINTS

CONT PVC WATERSTOP

CONTINUE HORIZ REINF

THROUGH JOINT

CONT REINF

THROUGH JOINT

CONT PVC WATERSTOP

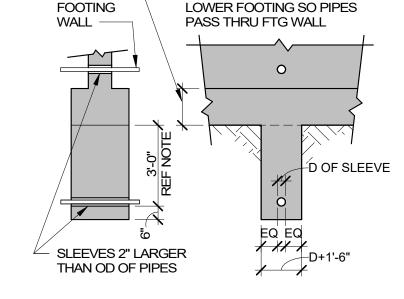
1 1/2" CONT KEY-

1/2"x1/2" JOINT

WITH SEALANT,

LOCATIONS.

EACH FACE

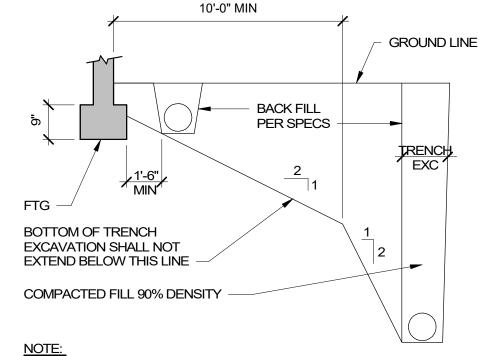


FOR PIPES IN THIS AREA

FOR PIPES 3 FOOT OR LESS BELOW FOOTING, PROVIDE SLEEVE AND CONCRETE AS SHOWN; MORE THAN 3 FOOT COMPACT FILL OVER PIPE TO 95 PERCENT AS APPROVED BY SOILS ENGINEER, OR USE STEPPED FOOTING BELOW PIPE.

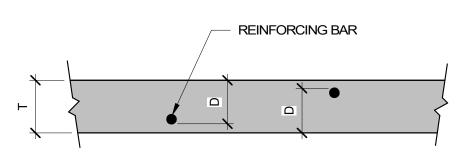
EXCAVATIONS

PIPE THRU



THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING, SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-INS UNTIL ALL BACK FILL IS COMPLETED PER SPECIFICATIONS.

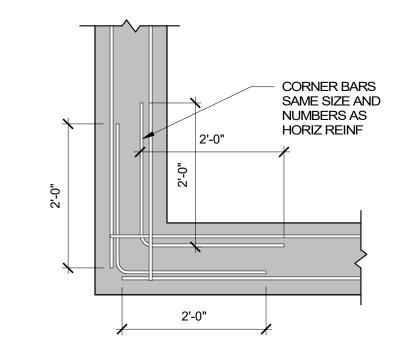
EXCAVATIONS



UNLESS OTHERWISE NOTED, REINFORCING SHALL BE PLACED AS SHOWN ON THE DRAWINGS WITHIN THE FOLLOWING TOLERANCE:

DEPTH, D, IN SLABS, JOISTS, BEAMS, WALLS, COLUMNS AND SIMILAR ELEMENTS WHERE D IS 24" OR LESS -----WHERE D IS MORE THAN 24" --------- ±1/2' LONGITUDINAL LOCATION OF BENDS AND ENDS OF BARS ----- ±2" EXCEPT THAT SPECIFIED CONCRETE COVER AT ENDS OF MEMBERS SHALL NOT BE REDUCED. FABRICATED DIMENSIONS OF TIES, STIRRUPS AND SPIRALS ----- 0'-1/4" OFFSET DIMENSIONS IN BENT BARS -----DIMENSION FROM FACE OF SUPPORT TO LOCATION OF A TIE OR STIRRUP -----

TOLERANCES FOR PLACING AND FABRICATION OF REINFORCING BAR (B5)



(A4) JOINT AT BASE OF WALLS

TYPICAL CORNER BAR



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OWL DRYING PAD DESIGN

KEY PLAN

XX/XX/XX PACKAGE RELEASE DATE NO DATE DESCRIPTION ISSUING OFFICE: BERNALILLO PROJECT NO: 0118.17

> **GENERAL NOTES AND** TYPICAL FOUNDATION **DETAILS**

> > **S-001**

ROUGEN SURFACE

TO 1/4" AMPLITUDE

