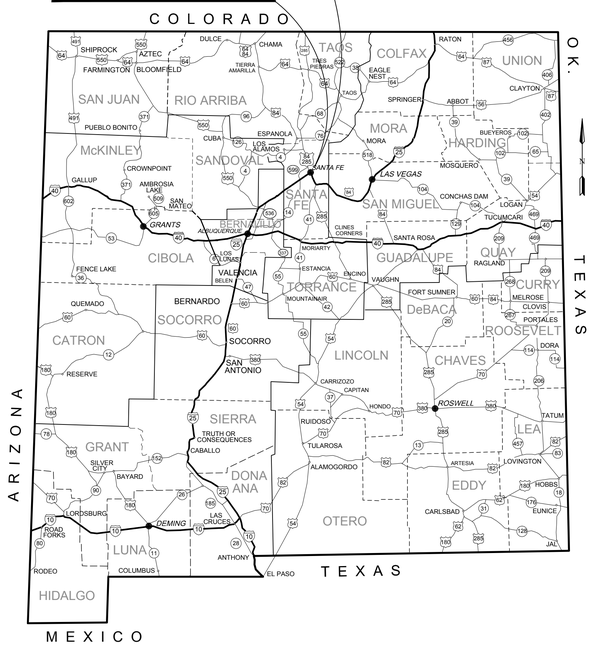
# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT

## SANTA FE, NEW MEXICO
## FEBRUARY 2016

PROJECT LOCATION




NTS

SITE LOCATION

VICINITY MAP

N

City of Santa Fe
New Mexico

VSL
structural TECHNOLOGIES
Structural Technologies, LLC
5161 Ward Road, Suite 1
Wheat Ridge, CO 80033
Telephone: (303)456-9557
WWW.VSL.NET

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

**CERTIFICATION:**

I, PETER G. FANT, REGISTERED PROFESSIONAL ENGINEER NO. 12203, HEREBY CERTIFY THAT THE FOLLOWING PLANS AND DESIGNS WERE MADE UNDER MY SUPERVISION AND DIRECTION AND THAT SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

2/19/16

N.M.P.E. NO. 12203

| Rev.# | Date | Description | By | Chk'd |
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| | | | | |

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CITY OF SANTA FE — SANTA FE, NM

CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
COVER

PETER G. FANT — NEW MEXICO — 12203 — LICENSED PROFESSIONAL ENGINEER

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

| Designed | Drawn | Checked |
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| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: N/A Vert: N/A

Project No: 9223842

Sheet: G-1

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# INDEX OF SHEETS


| SHEET # | DESCRIPTION |
|---|---|
| | |
| **GENERAL** | |
| G-1 | COVER |
| G-2 | INDEX OF SHEETS |
| G-3 | GENERAL NOTES AND ABBREVIATIONS |
| G-4 | SUMMARY OF QUANTITIES |
| G-5 | MISCELLANEOUS QUANTITIES |
| G-6 | EXISTING SITE PLAN & SURVEY CONTROL |
| G-7 | EXISTING TANK PLAN |
| | |
| | SUBTOTAL = 7 SHEETS |
| | |
| **CIVIL DEMOLITION** | |
| CD-1 | DEMOLITION SITE PLAN |
| CD-2 | TANK EXCAVATION PLAN |
| CD-3 | DEMOLITION SEQUENCE PLAN VIEW |
| CD-4 | DEMOLITION SEQUENCE SECTIONS & DETAILS |
| CD-5 | DEMOLITION EXCAVATION SEQUENCE |
| CD-6 | EXTENT OF SOIL NAILING |
| | |
| | SUBTOTAL = 6 SHEETS |
| | |
| **CIVIL SITE** | |
| C-1 | TANK REPLACEMENT PLAN |
| C-2 | TANK GRADING PLAN |
| C-3 | PARKING LOT GEOMETRY PLAN |
| C-4 | TANK SECTIONS |
| C-5 | RETAINING WALL PLAN |
| C-6 | RETAINING WALL PROFILES |
| C-7 | RETAINING WALL SECTIONS |
| C-8 | STORM DRAIN PLAN & PROFILE |
| C-9 | TANK FOOTING DRAIN PLAN |
| | |
| | SUBTOTAL = 9 SHEETS |
| | |
| **CIVIL ROADWAY** | |
| CR-1 | TEMPORARY CONSTRUCTION ACCESS ROAD PLAN |
| CR-2 | TEMPORARY CONSTRUCTION ACCESS ROAD PLAN & PROFILE |
| CR-3 | TEMPORARY CONSTRUCTION ACCESS ROAD INTERSECTION GEOMETRY |
| CR-4 | TEMPORARY CONSTRUCTION ACCESS ROAD STRUCTURE SECTION |
| CR-5 | TEMPORARY CONSTRUCTION ACCESS ROAD SECTIONS |
| CR-6 | TEMPORARY CONSTRUCTION ACCESS ROAD INTERSECTION REMOVAL & RESTORATION |
| | |
| | SUBTOTAL = 6 SHEETS |
| | |
| **STRUCTURAL** | |
| S-1 | GENERAL NOTES AND TYPICAL TANK DETAILS |
| S-2 | FLOOR PLAN AND SECTIONS |
| S-3 | FOUNDATION SECTIONS & DETAILS |
| S-4 | TYPICAL WALL SECTIONS & DETAILS |
| S-5 | WALL PILASTER SECTIONS & DETAILS |
| S-6 | ROOF PLAN |
| S-7 | ROOF SECTIONS & DETAILS |
| S-8 | STAIR PROFILE 2ND AND 3RD LEVEL |
| S-9 | STAIR PROFILE 1ST LEVEL |
| S-10 | STAIR LAYOUT & DETAILS |
| S-11 | TANK ACCESS ROOF HATCH FOR STAIRS |
| | |
| | SUBTOTAL = 11 SHEETS |
| | |
| | |
| **MECHANICAL** | |
| M-1 | TANK CONTROL SITE PLAN |
| M-2 | TANK PLUMBING PLAN |
| M-3 | TANK INLET/OUTLET PLAN & PROFILE |
| M-4 | EXISTING VALVE VAULT |
| M-5 | VALVE VAULT PLUMBING |
| M-6 | VALVE VAULT SECTIONS |
| M-7 | WATER SUPPLY LINE FOR IRRIGATION |
| | |
| | SUBTOTAL = 7 SHEETS |

| SHEET # | DESCRIPTION |
|---|---|
| | |
| **DETAILS** | |
| D-1 | CHAIN LINK FENCE DETAILS |
| D-2 | KEYSTONE RETAINING WALL SYSTEMS (TYPICAL WALL DETAILS) |
| D-3 | KEYSTONE RETAINING WALL SYSTEMS (TYPICAL WALL DETAILS) |
| D-4 | TYPICAL WALL TREE PLANTING DETAILS |
| D-5 | RETAINING WALLS |
| D-6 | RETAINING WALLS (2) |
| D-7 | WATERLINE DETAILS |
| D-8 | ROAD CLOSURE GATE DETAILS |
| | |
| | SUBTOTAL = 8 SHEETS |
| | |
| **LANDSCAPE ARCHITECTURE** | |
| L-1 | LANDSCAPE PLAN |
| L-2 | LANDSCAPE IRRIGATION PLAN |
| L-3 | LANDSCAPE NOTES AND DETAILS |
| | |
| | SUBTOTAL = 3 SHEETS |
| | |
| **SUPERVISORY CONTROL & AQUISITION (SCADA) AND PIPING & INSTRUMENTATION DIAGRAM (P&ID)** | |
| SCADA-1 | ALTITUDE VALVE VAULT & SCADA BUILDING SCHEMATIC |
| SCADA-2 | TANK PIPING & INSTRUMENTATION DIAGRAM |
| SCADA-3 | ALTITUDE VALVE PIPING & INSTRUMENTAION DIAGRAM |
| | |
| | SUBTOTAL = 3 SHEETS |
| | |
| **ELECTRICAL** | |
| E-1 | VALVE VAULT PLAN |
| E-2 | ALTITUDE VALVE VAULT PLAN |
| E-3 | CONDUIT SCHEDULE & LEGEND |
| | |
| | SUBTOTAL = 3 SHEETS |

| **NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS** | | |
|---|---|---|
| | | |
| **DRAWING NUMBER** | **DRAWING TITLE** | **DRAWING/REVISION DATE** |
| 570-02-1/2 | CULVERT PIPE END SECTION (METAL) | 2/10/2009 |
| 602-01-1/1 | WIRE ENCLOSED RIPRAP CLASS "A" | 11/16/2009 |
| 602-02-1/1 | EROSION CONTROL AT CULVERT OUTLETS | 8/9/2009 |
| 603-01-7/7 | T.E.S.C.M. OFFSITE TRACKING PREVENTION & DIVERSION DIKE | 11/29/2004 |
| 606-GR31-1/20 | W-BEAM GUARDRAIL | 5/6/2014 |
| 607-01-1/4 | BARBED WIRE AND WOVEN WIRE FENCE PLACEMENT | 8/16/2013 |
| 607-01-2/4 | BARBED WIRE AND WOVEN WIRE FENCE PLACEMENT | 11/29/2004 |
| 608-001-1 | PEDESTRIAN ACCESS ROUTE - GENERAL NOTES | 1/13/2015 |
| 608-001-2 | PERPENDICULAR CURB RAMPS | 1/13/2015 |
| 608-001-3 | PARALLEL CURB RAMPS | 1/13/2015 |
| 608-001-4 | DIAGONAL CURB RAMPS | 1/13/2015 |
| 608-001-5 | COMBINATION CURB RAMPS | 1/13/2015 |
| 608-001-6 | PEDESTRIAN REFUGE ISLAND | 1/13/2015 |
| 608-001-7 | CURB RAMP AND SIDEWALK TRANSITION DETAILS | 1/13/2015 |
| 608-001-8 | DETECTABLE WARNING SURFACE | 1/13/2015 |
| 608-001-9 | DRIVEWAY APRONS | 1/13/2015 |
| 608-001-10 | DRIVEWAY APRONS | 1/13/2015 |
| 608-001-11 | PEDESTRIAN ACCESS DETAILS STAIRWAYS AND HANDRAILS | 1/13/2015 |
| 608-001-12 | PEDESTRIAN ACCESS DETAILS PARKING AND PASSENGER LOADING ZONES | 1/13/2015 |
| 609-01-1/1 | SIDEWALK CURB AND GUTTER | 9/9/2009 |
| 623-01-1/1 | MEDIAN DROP INLET JUNCTION BOX, GRATES, NOTES AND QUANTITIES | 2/11/2009 |
| 623-02-1/1 | MEDIAN DROP INLET DETAIL AND QUANTITIES - TYPE I AND II | 4/13/2009 |
| 623-03-1/1 | MEDIAN DROP INLET DETAIL AND QUANTITIES - TYPE III | 11/10/2009 |
| 623-06-1/1 | MEDIAN DROP INLET 5'-0" x 5'-0" - DETAILS AND QUANTITIES | 9/23/2014 |
| 662-01-1/3 | PRECAST CONCRETE MANHOLE TYPE "C" FOR STORM DRAIN | 4/25/2012 |
| 662-01-2/3 | PRECAST CONCRETE MANHOLE TYPE "E" FOR STORM DRAIN | 4/25/2012 |
| 662-01-3/3 | PRECAST CONCRETE MANHOLE FRAME LID DETAILS AND STEP DETAILS | 4/25/2012 |
| | | |
| | SUBTOTAL = 27 SHEETS | |
| | | |
| | **TOTAL NUMBER OF SHEETS = 90 SHEETS** | |


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SANTA FE, NM

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INDEX OF SHEETS

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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| Designed | Drawn | Checked |
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Date: 2/19/2016

Scale: Horiz: N/A
Vert: N/A

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Sheet: G-2


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# GENERAL NOTES

1. THERE WILL BE A PERSON OR PERSONS (HEREINAFTER KNOWN AS THE OWNER'S REPRESENTATIVE) CHOSEN BY THE CITY OF SANTA FE (HEREINAFTER KNOWN AS OWNER) TO ACT AS CONTACT PERSONS WITH THE ENGINEER. THE OWNER'S REPRESENTATIVES WILL OBSERVE, PROVIDE INFORMATION AND PROVIDE CRITICAL LOCATIONS THROUGH THE ENGINEER TO THE CONTRACTOR IN THE FIELD.

2. SOUDER, MILLER AND ASSOCIATES SHALL HEREINAFTER BE KNOWN AS THE ENGINEER. THERE WILL BE A PERSON PROVIDED BY THE ENGINEER THAT WILL ACT AS A RESIDENT PROJECT REPRESENTATIVE WHO WILL BE THE FIELD CONTACT FOR QUESTIONS FROM THE CONTRACTOR TO THE ENGINEER.

3. THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND IS NOT LIABLE FOR PROBLEMS THAT MAY ARISE FROM THE CONTRACTOR'S FAILURE TO FOLLOW THESE DRAWINGS, SPECIFICATIONS, AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS ARISING FROM FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS.

4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTING THE WATER SYSTEM COMPONENTS ACCORDING TO: NEW MEXICO DRINKING WATER BUREAU STANDARDS, "NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (NMSSPWC) 2006 EDITION & APPLICABLE SUPPLEMENTAL SPECIFICATIONS & "OCCUPATIONAL SAFETY HEALTH ADMINISTRATION" REGULATIONS FOR TRENCHING, SHORING & EXCAVATION.

5. WHERE NOT COVERED BY LOCAL ORDINANCE, OR OTHER REFERENCED STANDARDS, THE "INTERNATIONAL BUILDING CODE" 2006 EDITION (IBC) SHALL GOVERN THIS PROJECT.

6. PER NMDWB 20.7.10.400.K "A COMPONENT, MATERIAL, TREATMENT CHEMICAL OR OTHER SUBSTANCE THAT MAY COME INTO CONTACT WITH DRINKING WATER MUST MEET THE MOST RECENT APPLICABLE SAFETY STANDARDS FROM, OR BE CERTIFIED BY, THE AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION PRIOR TO USE OR APPLICATION (NSF/ANSI 60 AND 61). THE SUBMITTAL DOES NOT INDICATE WHETHER THE MATERIALS USED FOR CONSTRUCTION OF THE NEW WATERLINE MEET THESE STANDARDS.

7. BACTERIOLOGICAL TEST SAMPLING SHALL BE PERFORMED FOR EVERY 1000' OF PIPE LENGTH.

8. WHERE WATER AND SEWER LINES ARE LAID PARALLEL, THE TYPICAL HORIZONTAL SEPARATION SHALL BE 10 FEET APART AND THE WATER LINE SHALL BE A MINIMUM OF 18 INCHES HIGHER THAN THE SEWER LINE. IF IT IS POSSIBLE, SEPARATE TRENCHES WILL BE REQUIRED IN ALL CASES (THIS SHALL BE EFFECTIVE EVEN THOUGH ONE LINE HAS ALREADY BEEN INSTALLED PRIOR TO THE 0THER) AND THE WATER LINE SHALL BE 3 FEET ABOVE THE SEWER LINE.

9. TANK AND ALL COMPONENTS IN CONTACT WITH POTABLE WATER SHALL BE DISINFECTED WITH A CHLORINE CONCENTRATION IN ACCORDANCE WITH SECTIONS 3 AND 4 OF AWWA C652. CONTRACTOR SHALL UTILIZE CHLORINE METHOD 2 AS SPECIFIED IN SECTION 4.3 OF AWWA C652. CONTRACTOR RESPONSIBLE FOR SUBMITTING DISINFECTION PROCEDURE TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO BEGINNING DISINFECTION.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL REQUIREMENTS FOR TESTING AND SHALL REPORT ALL RESULTS TO THE ENGINEER.

11. IN THE EVENT THAT THE CONTRACTOR ENCOUNTERS ITEMS OF HISTORICAL IMPORTANCE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY AND WORK IN THE AREA SHALL IMMEDIATELY CEASE UNTIL THE SITE CAN BE PROPERLY CLEARED.

12. ALL WORK IN THE VICINITY OF LIVE STREAMS, WATER IMPOUNDMENTS, WETLANDS OR IRRIGATION SUPPLIES SHALL BE EFFECTED IN SUCH A MANNER AS TO MINIMIZE VEGETATION REMOVAL, SOIL DISTURBANCE AND EROSION. CROSSINGS OF LIVE STREAMS WITH HEAVY EQUIPMENT SHALL BE MINIMIZED, AS DETERMINED BY THE ENGINEER. EQUIPMENT REFUELING, MAINTENANCE AND CEMENT DUMPING IN THE VICINITY OF WATER COURSES IS STRICTLY PROHIBITED AND SHALL BE PERFORMED IN PROPER CONTAINMENT AREAS.

13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE LOCATION OF ALL UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE GENERAL LOCATION OF KNOWN EXISTING UTILITIES HAS BEEN SHOWN ON THE CONSTRUCTION DRAWINGS TO INDICATE THAT CAUTION MUST BE EXERCISED WHEN WORKING IN THESE AREAS. IN MANY CASES THE EXACT LOCATION OF THE FACILITIES IS NOT KNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL OVERHEAD AND UNDERGROUND UTILITIES WITHIN THE VICINITY OF THE NEW CONSTRUCTION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR, WORKING WITH THE RESPECTIVE UTILITY COMPANIES, SHALL ACCURATELY LOCATE AND MARK ALL BURIED FACILITIES, INCLUDING SERVICE LINES. ALL EQUIPMENT LABOR, ETC. NECESSARY TO PROPERLY LOCATE THE EXISTING UTILITIES SHALL BE FURNISHED BY THE CONTRACTOR, THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICES ON VARIOUS BID ITEMS.

14. CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING BUILDING PERMITS, UTILITY BORE PERMITS AND ANY OTHER, WHICH HAVE NOT ALREADY BEEN OBTAINED BY THE ENGINEER.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED BY THE PLANS WHETHER SPECIFICALLY LISTED OR NOT TO COMPLETE THE PROJECT. THIS WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND THE CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR UNLISTED REMOVALS. THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIAL IN AN ENVIRONMENTALLY ACCEPTABLE MANNER AT A LOCATION ACCEPTABLE TO THE OWNER AND ENGINEER.

16. THE CONTRACTOR SHALL SALVAGE ANY OBSTRUCTIONS NOTED ON THE CONTRACT DRAWINGS AS WELL AS REUSABLE ITEMS FOUND DURING CONSTRUCTION. SUCH ITEMS, IF ANY, SHALL BE DELIVERED TO THE PROPER OWNER AS DIRECTED BY THE ENGINEER AND/OR OWNER DURING CONSTRUCTION.

17. THE CONTRACTOR WILL NOT BE ALLOWED TO STORE EQUIPMENT IN THE CONSTRUCTION ZONE DURING NON-WORKING HOURS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A STORAGE AREA(S) FOR THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR SITE SECURITY. THE CHRISTUS ST. VINCENT HOSPITAL HAS AGREED TO THE USE OF A SHARED CONSTRUCTION STAGING AREA ON THEIR PROPERTY ADJACENT TO THE TANK. THE USE OF THIS STAGING AREA WILL REQUIRE COORDINATION WITH THE CONTRACTOR FOR THE HOSPITAL (SEE THE BASIC REQUIREMENTS OF THE TECHNICAL SPECS)

18. CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY LOCATION, PROTECTION, AND VERIFICATION. CONTRACTOR MUST NOTIFY NEW MEXICO ONE CALL SYSTEM, INC. AT 1-800-321-ALER(T), AND ALL LOCAL UTILITY PROVIDERS THREE (3) DAYS BEFORE STARTING UTILITY CONSTRUCTION.

19. THROUGHOUT THE LIFE OF THE PROJECT, THE CONTRACTOR SHALL KEEP ANY EXISTING SYSTEM OPERATING. THE CONTRACTOR SHALL REPORT ANY UTILITY SHUTOFFS OF ANY OR ALL CONNECTIONS TO THE USER'S REPRESENTATIVE TWENTY-FOUR (24), OR MORE, HOURS IN ADVANCE OF THE SHUT-OFFS. ALL LOCAL RESIDENTS AND BUSINESSES SHALL BE CONTACTED BEFORE ANY DISCONNECTION OF WATER SERVICE. ANY INTERRUPTION OF WATER SERVICE SHALL BE KEPT TO THE MINIMUM LENGTH OF TIME POSSIBLE.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE FOR CONSTRUCTION. NO DIRECT PAYMENT WILL BE MADE FOR WATER. ALL PERMITS, FEES, EQUIPMENT, HAUL, ETC. RELATIVE TO OBTAINING WATER SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS BID ITEMS.

21. CONTRACTOR SHALL CONFINE ALL CONSTRUCTION OPERATIONS TO THE LIMITS OF THE PROJECT DEFINED IN THESE DRAWINGS, AND IN NO WAY ENCROACH ONTO ADJACENT PROPERTIES, UNLESS LEGAL EASEMENTS ARE PROVIDED. CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY AGREEMENTS NEEDED, OR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO PUBLIC OR PRIVATE PROPERTY, INCLUDING UTILITIES.

22. THE CONTRACTOR SHALL TAKE ANY NECESSARY MEASURES TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS FROM DAMAGE DURING CONSTRUCTION. IF DURING EXECUTION OF THE PROJECT, THE CONTRACTOR'S ACTIVITIES DISTURB OR DESTROY SUCH MONUMENTS, THE CONTRACTOR SHALL RE-ESTABLISH THEM IN ACCORDANCE WITH THE STANDARDS AND PROCEDURES SET FORTH IN THE "GEODETIC MARK PRESERVATION GUIDEBOOK". FOR MORE INFORMATION CONTACT NGS MARK PRESERVATION CENTER, NOAA, (505) 768-3606.

23. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING STRUCTURES FREE OF DUST AND/OR CONSTRUCTION DEBRIS AT ALL TIMES DURING THE EXECUTION OF THE PROJECT. ALL EXISTING AND NEW STRUCTURES SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. ALL COSTS RELATED TO THIS ITEM SHALL BE INCIDENTAL TO THE WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR.

24. CONTRACTOR SHALL REPAIR ANY EXISTING STRUCTURE OR UTILITY CONDUIT DAMAGED DURING THE EXECUTION OF THE PROJECT, AT NO ADDITIONAL COSTS TO THE OWNER.

25. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF MATERIALS AND EQUIPMENT PRIOR TO AND AFTER THEIR INSTALLATION AS APPLICABLE, UNTIL THE PROJECT'S FINAL ACCEPTANCE BY THE OWNER.

26. AS REQUIRED, NOT LESS THAN 5 DAYS PRIOR TO INITIATING ANY WORK, THE CONTRACTOR SHALL SUBMIT A DUST SUPPRESSION AND EROSION CONTROL PLAN FOR THE OWNER'S APPROVAL. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN SUCH A MANNER THAT WILL HAVE NO ADVERSE EFFECT UPON ADJACENT PROPERTIES OR PUBLIC ROADWAYS.

27. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR EROSION CONTROL INCIDENTAL TO THE CONSTRUCTION ACTIVITIES. IN THE EVENT THAT ONE (1) ACRE OF EARTH OR MORE ARE DISTURBED, THE CONTRACTOR SHALL SUBMIT A STORM WATER POLLUTION PREVENTION PLAN TO THE OWNER'S ENGINEER. THE PLAN WILL ADDRESS ALL CONSTRUCTION PHASES AND THE PROPOSED POLLUTION PREVENTION AND SEDIMENT CONTROL MEASURES. THIS SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT REQUIREMENT FOR ALL CONSTRUCTION ACTIVITIES.

28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING AND CLEANUP OF SPILLS ASSOCIATED WITH PROJECT CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, AND OTHER MATERIALS WHICH MAY BE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING PAST SPILLS ENCOUNTERED DURING CONSTRUCTION AND OF CURRENT SPILLS NOT ASSOCIATED WITH CONSTRUCTION. REPORTS SHALL BE MADE IMMEDIATELY TO THE NM ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE TEAM AT (505) 827-4308 OR (505) 470-3657 AND TO THE ENGINEER. ANY UNREPORTED SPILLS IDENTIFIED AFTER CONSTRUCTION AND THE ASSOCIATED CLEANUP COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

29. THE CONTRACTOR SHALL PREPARE AND MAINTAIN UP-TO-DATE "AS-BUILT" DRAWINGS. UPDATING SUCH DRAWINGS SHALL BE DONE NOT LESS THAN ONCE EVERY WEEK. THE ENGINEER OR ENGINEER'S REPRESENTATIVE SHALL BE ALLOWED TO REVIEW THESE DRAWINGS AT ANY TIME DURING CONSTRUCTION. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TWO (2) SETS OF COMPLETE AS-BUILT DRAWINGS TO THE ENGINEER.

30. CONTRACTOR SHALL SUBMIT ASTM OR AASHTO CERTIFICATES OF MATERIAL'S COMPLIANCE TO THE ENGINEER NO LESS THAN 5 DAYS PRIOR TO INITIATING ANY WORK INVOLVING SUCH MATERIALS.

31. ANY UTILITIES FOR THIS PROJECT SHALL BE INSTALLED TO THE MINIMUM COVER AS SHOWN ON THE CONSTRUCTION DRAWINGS. THIS INCLUDES ANY CROSSING SERVICES OR LATERALS INSTALLED. EXCEPTIONS MUST BE AUTHORIZED BY THE ENGINEER.

32. ALL INSTALLED UTILITY MAINS, LATERALS, AND SERVICES SHALL BE MARKED WITH TRACER WIRE TAPED TO TOP OF PIPE AND DETECTABLE WARNING TAPE WHERE APPLICABLE AT LEAST EIGHTEEN (18) INCHES ABOVE BURIED PIPE, AS PER SPECIFICATIONS AND THESE DRAWINGS.

33. ALL INSTALLED OR OPENED WATERLINES & MATERIALS SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE.

34. ALL BEDDING MATERIAL SHALL BE GRANULAR AND FREE-DRAINING, HAVE A MAXIMUM GRAIN SIZE THAT DOES NOT EXCEED 3/8 INCH, AND BE ACCEPTABLE TO THE ENGINEER.

35. OVER-EXCAVATION OF TRENCHES SHALL NOT BE PERFORMED UNLESS IT IS DETERMINED, TO THE SATISFACTION OF THE ENGINEER THAT THE SUBSOIL IS NOT SUITABLE FOR PIPE BEDDING AND MUST BE REPLACED WITH IMPORTED FILL. OVER-EXCAVATION PERFORMED UNNECESSARILY BY THE CONTRACTOR SHALL BE REMEDIED WITH CLASSIFIED FILL AND COMPACTION AS REQUIRED BY THE SPECIFICATIONS, AT THE CONTRACTOR'S EXPENSE.

36. PADDING AND BACK FILL MATERIAL, IF REQUIRED, SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE. SEPARATE PAYMENT WILL NOT BE MADE FOR PADDING AND BACK FILL MATERIAL OR HAUL. ALL PADDING AND BACK FILL MATERIAL OR HAUL SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS WORK ITEMS. THE CONTRACTOR SHALL SECURE A SUITABLE PADDING AND BACK FILL MATERIAL PIT IF MATERIAL IS REQUIRED TO COMPLETE THE PROJECT.

37. BACK FILL DENSITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

38. ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES OF THIS PROJECT SHALL BE RESTORED, RE-GRADED IN A MANNER ACCEPTABLE TO THE OWNER, USER AND ENGINEER.

39. EXCESS MATERIAL, IF APPLICABLE, SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE UNLESS OTHERWISE DIRECTED BY THE OWNER, USER OR ENGINEER.

40. OBSTRUCTIONS REMOVED FROM THE WORK AREAS SHALL BE DISPOSED OF BY THE CONTRACTOR. DISPOSAL OF USABLE MATERIALS (E.G.. EXCESS DIRT, GRAVEL, ETC.) SHALL BE AT A SITE DESIGNATED BY THE OWNER DURING CONSTRUCTION. THE DISPOSAL SITE FOR EXCESS MATERIAL MUST BE APPROVED BY THE OWNER'S OR USER'S PROJECT MANAGER AND ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE A DISPOSAL SITE FOR NON-USABLE MATERIALS (E.G. BRUSH, CONCRETE). ACCORDING TO THE NMED. WASTE PAVEMENT AND CONCRETE ARE NOT CONSIDERED REGULATED WASTE AND CAN BE DISPOSED OF FOR USE AS FILL OR EROSION CONTROL IF A SITE CAN BE LOCATED. ALL OTHER WASTE (E.G. TRASH, BRUSH, ETC.) SHALL BE DISPOSED OF AT AN APPROVED LANDFILL. ALL DISPOSAL SITES MUST BE APPROVED BY THE ENGINEER AND OWNER PRIOR TO DISPOSAL OF ANY WASTE.

# ABBREVIATIONS

| | |
|---|---|
| ADDN'L | ADDITIONAL |
| ALT | ALTERNATE |
| ARV | AIR RELEASE VALVE |
| AWWA | AMERICAN WATER WORKS ASSOCIATION |
| BIA | BUREAU OF INDIAN AFFAIRS |
| BOT. or B. | BOTTOM |
| C/B | CIRCUIT BREAKER |
| CBC | CONCRETE BOX CULVERT |
| CF | CUBIC FEET |
| C&G | CURB & GUTTER |
| CI | CAST IRON |
| CIP | COMPLETE IN PLACE |
| C.J. | CONSTRUCTION JOINT |
| CL or ℄ | CENTERLINE |
| CLR. | CLEAR |
| CMP | CORRUGATED METAL PIPE |
| CO | CLEANOUT |
| CONC. | CONCRETE |
| CONN | CONNECTION |
| CONT. | CONTINUOUS |
| CP | CONTROL POINT |
| CY | CUBIC YARDS |
| D.I. | DUCTILE IRON |
| DIA or Ø | DIAMETER |
| D.I.P. | DUCTILE IRON PIPE |
| DOT | (NEW MEXICO) DEPARTMENT OF TRANSPORTATION |
| EA. | EACH |
| E.A.E. | ENGINEER APPROVED EQUAL |
| E.F.P. | EQUIVALENT FLUID PRESSURE |
| EG | EXISTING GROUND |
| ELEC | ELECTRIC |
| ELEV or EL | ELEVATION |
| EX or EXIST. | EXISTING |
| FCA | FLANGED COUPLING ADAPTER |
| FDN. | FOUNDATION |
| FF | FINISHED FLOOR |
| FG | FINISH GRADE |
| FIG | FIGURE |
| FL or ℄ | FLOWLINE |
| FNPT | FEMALE NATIONAL PIPE THREAD |
| FO | FIBER OPTIC |
| FPU | ULIIMATE STRENGTH |
| FS | FLUSH SHALLOW |
| GALV | GALVANIZED |
| GFI | GROUND FAULT INTERRUPTER |
| GND | GROUND |
| H.A.S. | HEADED ANCHOR STUD |
| HDPE | HIGH DENSITY POLYETHYLENE PIPE |
| HK. | HOOK |
| HORIZ. | HORIZONTAL |
| ID | INNER DIAMETER |
| IE | INVERT ELEVATION |
| I.F. | INSIDE FACE |
| INV | INVERT |
| IPS | IRON PIPE SIZE |
| KAIC | KILO AMPS INTERRUPTING CAPACITY |
| LF | LINEAR FEET |
| LPSS | LOW PRESSURE SEWER SYSTEM |
| LS | LIFT STATION |
| LS | LUMP SUM (IN SUMMARY OF QUANTITIES) |
| MAX | MAXIMUM |
| Ma | MILLIAMP (ONE THOUSANDTH OF AN AMP) |
| MIN | MINIMUM |
| Mil or mil | THOUSANDTH OF AN INCH |
| MJ | MECHANICAL JOINT |
| mm | MILLIMETERS |
| MH | MANHOLE |
| NE | NORTHEAST |
| NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION |
| NGS | NATIONAL GEODETIC SURVEY |
| NO. or # | NUMBER |
| NOAA | NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION |
| NMDOT | NEW MEXICO DEPARTMENT OF TRANSPORTATION |
| NMED | NEW MEXICO ENVIRONMENT DEPARTMENT |
| NTS | NOT TO SCALE |
| NW | NORTHWEST |
| OD | OUTER DIAMETER |
| OC or O.C. | ON CENTER |
| O.F. | OUTSIDE FACE |
| OHD | OVERHEAD |
| PCF | POUNDS PER CUBIC FOOT |
| PE | POLYETHYLENE |
| PERP. | PERPENDICULAR |
| PL. | PLACES |
| PLC | PROGRAMMABLE LOGIC CONTROLLER |
| PSF | POUNDS PER SQUARE FOOT |
| psi | POUNDS PER SQUARE INCH |
| P.T. | POST TENSIONING |
| PVC | POLYVINYL CHLORIDE |
| R or RAD | RADIUS |
| RCP | REINFORCED CONCRETE PIPE |
| REINF. | REINFORCING |
| RFB | REQUEST FOR BID |
| RGC | RIGID GALVANIZED CONDUIT |
| RMJ | RESTRAINED MECHANICAL JOINT |
| ROW | RIGHT OF WAY |
| RTU | REMOTE TERMINAL UNIT |
| S.B. | SLAB BOLSTER |
| SCADA | SUPERVISORY CONTROL AND DATA ACQUISITION |
| SCH | SCHEDULE |
| SD | STORM DRAIN |
| SE | SOUTHEAST |
| SF | SQUARE FEET |
| SPD | SURGE PROTECTION DEVICE |
| SPECS | SPECIFICATIONS |
| SQ. | SQUARE |
| SS | STAINLESS STEEL |
| SS or S | SANITARY SEWER |
| STA | STATION |
| STD | STANDARD |
| SVC | SERVICE |
| SY | SQUARE YARDS |
| T. | TOP |
| TYP | TYPICAL |
| UGD | UNDERGROUND |
| SMA | SOUDER, MILLER & ASSOCIATES |
| SW | SOUTHWEST |
| SWPPP | STORM WATER POLLUTION PREVENTION PLAN |
| TELE | TELEPHONE |
| UTIL | UTILITY |
| USBOR | UNITED STATES BUREAU OF RECLAMATION |
| VB/AR | VACUUM BREAKER/AIR RELEASE VALVE |
| VCP | VALVE CONTROL PANEL |
| VERT. | VERTICAL |
| W | WATER |
| W/ | WITH |
| W/O | WITHOUT |
| WP | WEATHER PROOF |
| XING | CROSSING |

| Rev # | Date | Description | By | Chk'd |
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| | | | | |


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CITY OF SANTA FE

SANTA FE, NM

CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
GENERAL NOTES AND ABBREVIATIONS

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LICENSED PROFESSIONAL ENGINEER

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

| Designed | Drawn | Checked |
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| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: AS SHOWN
Vert: N/A

Project No: 9223842

Sheet: G-3

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# SUMMARY OF QUANTITIES

| Item # | Item Code | Description | Units | Project Quantities |
|---|---|---|---|---|
| 1 | SMA | Mobilization | LS | 1 |
| 2 | SMA | SWPPP | LS | 1 |
| 3 | DOT | Traffic Control | LS | 1 |
| 4 | SMA | Geotechnical under Removed Tank | LS | 1 |
| 5 | SMA | Testing | Allowance | 1 |
| 6 | SMA | Construction Staking | LS | 1 |
| 7 | DOT | NMDOT Temporary Driveway Access Permit | LS | 1 |
| 8 | SMA | Tank Disinfection | LS | 1 |
| | | | | |
| | **Demolition** | | | |
| 9 | SMA | Existing Tank Demolition | LS | 1 |
| 10 | SMA | Tank Excavation | CY | 18,500 |
| 11 | SMA | Remove and Salvage Chain Link Fence | LF | 1,172 |
| 12 | SMA | Remove existing Valve Vault and Manhole | LS | 1 |
| 13 | SMA | Remove Overflow and Inlet/Outlet line | LF | 115 |
| 14 | SMA | Remove and Salvage Riprap | CY | 36 |
| 15 | SMA | Remove existing Barbed Wire Fence | LF | 537 |
| 16 | SMA | Remove existing Curb & Gutter | LF | 1,052 |
| 17 | SMA | Remove existing Pavement | SY | 524 |
| 18 | SMA | Remove existing Light Fixtures | EA | 1 |
| 19 | SMA | Remove existing Conduit & Electrical Wires | LF | 125 |
| 20 | SMA | Remove existing Electrical Metering Pedestal | EA | 1 |
| 21 | SMA | Remove existing 2" Waterline | LF | 125 |
| 22 | SMA | Remove perforated Tank Foundation under Drains | LF | 800 |
| 23 | SMA | Romove and Salvage existing Tank Level Sensor | EA | 1 |
| | | | | |
| | **Tank Construction** | | | |
| 24 | SMA | Construction Shoring (Soil Nailing) | LS | 1 |
| 25 | SMA | New 4 Million Gallon Concrete Tank | LS | 1 |
| 26 | SMA | Tank Stairs | LS | 2 |
| 27 | SMA | Tank Access Hatches (above Stairs & Inlet/Outlet) | LS | 2 |
| 28 | SMA | Tank Access Hatches (above Overflow) | LS | 2 |
| 29 | SMA | Tank Backfill | CY | 18,149 |
| 30 | SMA | 4" Tank Foundation Drain Pipe | LF | 575 |
| 31 | SMA | Retaining Walls | SF | 4,832 |
| 32 | SMA | 3/4" Crushed Rock Type B (Class 1 Crushed Stone) | CY | 468 |
| 33 | SMA | Geogrid | SY | 836 |
| 34 | SMA | 24" Storm Drain Culvert Pipe | LF | 320 |
| 35 | DOT-623 | 5' x 5' Median Drop Inlet | EA | 1 |
| 36 | DOT-662 | Precast Concrete Manhole (Type "E") | EA | 1 |
| 37 | DOT-570 | 24" Culvert Pipe End Section | EA | 1 |
| 38 | DOT-602 | Wire Enclosed Riprap (Class A) | SY | 110 |
| 39 | SMA | Inlet / Outlet Structure | EA | 2 |
| 40 | SMA | Overflow Structure | EA | 2 |
| 41 | SMA | 24" Ductile Iron Pipe (D.I.P.) | LF | 437 |
| 42 | SMA | 20" Ductile Iron Pipe (D.I.P.) | LF | 190 |
| 43 | SMA | 24" D.I. 90° Bend | EA | 2 |
| 44 | SMA | 20" D.I. 90° Bend | EA | 2 |
| 45 | SMA | 24" D.I. 45° Bend | EA | 4 |
| 46 | SMA | 24" D.I. Restrained Mechanical Joint (RMJ) | EA | 2 |
| 47 | SMA | 20" D.I. Restrained Mechanical Joint (RMJ) | EA | 1 |
| 48 | SMA | 24" to 20" D.I. Reducer | EA | 1 |
| 49 | SMA | 2" Still Pipe for Level Indicator | LF | 60 |
| 50 | SMA | Remove and Replace (Chain Link Fence around Vault) | LS | 1 |
| 51 | SMA | Chain Link Fence (around Tank Overflow Outlet) | LF | 32 |
| 52 | SMA | 1" Dia Copper Tubing (Type "K") | LF | 232 |
| 53 | SMA | Waterline Service Tap | EA | 1 |
| 54 | SMA | Water Meter Assembly CIP | EA | 1 |
| 55 | DOT-423 | Pavement Patch of Trench | SY | 77 |
| 56 | SMA | Frost Free Hydrant Assembly | EA | 1 |

| Item # | Item Code | Description | Units | Project Quantities |
|---|---|---|---|---|
| | **Valve Vault Plumbing** | | | |
| 57 | SMA | Remove and Salvage existing 8" Butterfly Valve | EA | 1 |
| 58 | SMA | Remove and Salvage existing 24" Butterfly Valve | EA | 1 |
| 59 | SMA | Remove existing 24" FCA with Restraining Rods | EA | 1 |
| 60 | SMA | Remove and Salvage existing Pipe Support | EA | 1 |
| 61 | SMA | Remove existing Plumbing Stub-out through Wall | EA | 1 |
| 62 | SMA | Patch Concrete Wall & Cover with 60 mil Waterproofing | LS | 1 |
| 63 | SMA | 8" D.I. Pipe | LF | 28 |
| 64 | SMA | 24" D.I. Pipe | LF | 12 |
| 65 | SMA | 24" x 24" x 8" D.I. MJ Tee | EA | 1 |
| 66 | SMA | 24" x 24" x 6" D.I. MJ Tee | EA | 2 |
| 67 | SMA | 24" x 24" x 24" D.I. MJ Tee | EA | 1 |
| 68 | SMA | 24" D.I.P. Blind Flange | EA | 1 |
| 69 | SMA | 8" D.I. 90° MJ Bend | EA | 3 |
| 70 | SMA | 8" D.I. Butterfly Valve w/Electronic Actuator | EA | 2 |
| 71 | SMA | 4" CLA-VAL Series 36 ARV or Series 38 VB/AR | EA | 1 |
| 72 | SMA | 24" D.I. Butterfly Valve w/Electronic Actuator | EA | 2 |
| 73 | SMA | Pipe Supports | EA | 4 |
| 74 | SMA | Pipe Nipple for Pressure Transmitter | EA | 2 |
| | | | | |
| | **Site Grading & Landscaping** | | | |
| 75 | SMA | Final Site Grading | LS | 1 |
| 76 | SMA | Juniperus monosperma / One-seed Juniper | EA | 33 |
| 77 | SMA | Artemisia tridentata / Tall Western Sage | EA | 18 |
| 78 | SMA | Atriplex canescens / Four Wing Saltbrush | EA | 9 |
| 79 | SMA | Cercocarpus ledifolius / Curlleaf Mountain Mahogany | EA | 8 |
| 80 | SMA | Chamaebatiaria Millefolium / Fernbush | EA | 12 |
| 81 | SMA | Ericameria nauseosa spp. / Chamisa | EA | 18 |
| 82 | SMA | Fallugia paradoxa / Apache Plume | EA | 12 |
| 83 | SMA | Holodiscus dumosus / Rock Spirea | EA | 10 |
| 84 | SMA | Krasheninikovia lanata / Winterfat | EA | 6 |
| 85 | SMA | Rhus trilobata / Three-Leaf Sumac | EA | 12 |
| 86 | SMA | Ribes aureum / Yellow Flowering Currant | EA | 8 |
| 87 | SMA | Shepherdia argentea / Silver Buffaloberry | EA | 6 |
| 88 | SMA | Yucca baccata / Datil Yucca | EA | 7 |
| 89 | SMA | 2' x 3' x 2.5' Boulders | EA | 52 |
| 90 | SMA | Irrigation Shut-off and Drain Valve | EA | 2 |
| 91 | SMA | FEBCO 860U 3/4" Reduced Pressure/ Backflow Assembly | EA | 1 |
| 92 | SMA | Controller, Rainbird ESP-4M and RSD Rain Sensor | EA | 1 |
| 93 | SMA | Control Valve, Rainbird LFV-100 & RBY100MPTX Filter | EA | 3 |
| 94 | SMA | 3/4" PE Irrigation Tubing | LF | 3,000 |
| 95 | SMA | 3" Sch. 40 PVC Sleeve (under Parking Lot) | LF | 30 |
| 96 | SMA | Rainbird XB-10C 1 GPH Emitter w/Stake and Bug Cap | EA | 252 |
| 97 | SMA | Rainbird PC-05 5 GPH Emitter w/Stake and Bug Cap | EA | 99 |
| | | | | |
| | **Access Road & Parking lot** | | | |
| 98 | DOT-609 | Curb Cut (or Remove and Replace with Laydown Curb) | LF | 287 |
| 99 | DOT-609 | Type B Barrier Curb | LF | 125 |
| 100 | DOT-608 | 5' Concrete Side Walk | SY | 287 |
| 101 | DOT-608 | ADA Ramp (2 Ramps) | SY | 12 |
| 102 | DOT-203 | Excavation | CY | 2,148 |
| 103 | DOT-203 | Fill | CY | 2,138 |
| 104 | DOT-207 | 6" Compacted Subgrade | SY | 1,660 |
| 105 | DOT-303 | 4" Base Course | CY | 172 |
| 106 | DOT-423 | 4" Hot Mix Asphalt SP-111 | SY | 432 |
| 107 | DOT-570 | 36" CMP | LF | 130 |
| 108 | DOT-507 | 36" End Section | EA | 2 |
| 109 | DOT-603 | 1" - 3" Coarse Aggregate for Off-site Tracking Prevention | LS | 1 |
| 110 | DOT-607 | 14'-0" Tubular Ranch Gate | EA | 2 |
| 111 | SMA | 12'-0" Road Closure Gate | EA | 3 |
| 112 | SMA | Relocation of Electrical Box | EA | 1 |
| 113 | DOT-607 | Barbed Wire Fence | LF | 50 |
| 114 | SMA | DOT Access Permit | LS | 1 |
| 115 | DOT-606 | W-Beam Guardrail | LF | 255 |

| Item # | Item Code | Description | Units | Project Quantities |
|---|---|---|---|---|
| | **Access Road Intersection Removal** | | | |
| 116 | DOT-618 | Traffic Control | LS | 1 |
| 117 | DOT-601 | Remove existing Curb & Gutter | LF | 287 |
| 118 | DOT-601 | Remove existing Pavement | SY | 260 |
| 119 | DOT-601 | Remove existing 5' Concrete Sidewalk | SY | 287 |
| 120 | DOT-609 | Type B Barrier Curb | LF | 287 |
| 121 | DOT-608 | 5' Concrete Side Walk | SY | 287 |
| 122 | DOT-308 | 4" Base Course | CY | 29 |
| 123 | DOT-208 | Re-grade Site | LS | 1 |
| 124 | DOT-632 | Re-seeding | LS | 1 |
| | | | | |
| | **Tank Controls** | | | |
| 125 | SMA | Design and Build VCP & RTU | Allowance | 1 |
| 126 | SMA | SCADA, PLC Programming | Allowance | 1 |
| 127 | SMA | 3/4" PVC coated RGC | LF | 1,315 |
| 128 | SMA | 1" PVC coated RGC | LF | 817 |
| 129 | SMA | 2" PVC coated RGC | LF | 31 |
| 130 | SMA | #12 XHHW-2 | LF | 756 |
| 131 | SMA | #14 XHHW-2 | LF | 7,108 |
| 132 | SMA | 6 Fiber Cable | LF | 1,360 |
| 133 | SMA | Belden 9342 | LF | 1,800 |
| 134 | SMA | Pull Box, SS NEMA 4 | LF | 4 |
| 135 | SMA | Junction box, FS PVC Coated | EA | 33 |
| 136 | SMA | Connect Irrigation Control Panel | EA | 1 |
| 137 | SMA | 20A 1p C/B in existing Panel | EA | 4 |
| 138 | SMA | Connect Instrument | EA | 16 |
| 139 | SMA | Connect Motorized Valve | EA | 4 |
| 140 | SMA | Terminate at VCP | EA | 89 |
| 141 | SMA | Trench and Backfill | LF | 700 |
| 142 | SMA | Coredrill Valve Vault | EA | 3 |
| 143 | SMA | Patch | LS | 3 |
| 144 | SMA | Removals | LS | 1 |
| | | | | |
| | **Tools and Spare Parts (as Defined in Exhibit VI of the RFB)** | | | |
| 145 | N/A | Tools | LS | 1 |
| 146 | N/A | Spare Parts | LS | 1 |

NOTES:

- ALL DOT ITEM CODES SHALL BE GOVERNED BY THE NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY & BRIDGE CONSTRUCTION, CURRENT EDITION.
- ALL SMA ITEM CODES SHALL BE GOVERNED BY SMA SPECIFICATIONS AS INCLUDED IN THE PROJECT MANUAL.

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CITY OF SANTA FE, NM

CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
SUMMARY OF QUANTITIES

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| Designed | Drawn | Checked |
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| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: N/A
Vert: N/A

Project No: 9223842

Sheet: G-4

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# MISCELLANEOUS QUANTITIES

NOTES:
CUT/FILL QUANTITIES ARE BASED ON 0% SHRINK/SWELL FACTOR.

**Culvert Pipe**

| Item # | Description | Location | Sta: To Sta: | Total LF |
|---|---|---|---|---|
| | 24" CMP | Tank Storm Drain | 0+00 to 3+19 | 320 |
| | 36" CMP | Access Road | 0+10 to 1+40 | 130 |
| | | | | |

**Culvert Pipe End Section**

| Item # | Description | Location | Sta: | Total |
|---|---|---|---|---|
| | 24" Culvert Pipe End Section | Tank Storm Drain | 0+00 | 1 |
| | 36" Culvert Pipe End Section | Access Road | 0+10 & 1+40 | 2 |
| | | | | |

**Type B Curb & Gutter**

| Item # | Location | Sta: | Total LF |
|---|---|---|---|
| | Parking Lot | N/A | 125 |
| | Access Road | 1+19 to 4+06 | 287 |
| | | | |
| | | **Total** | **412** |

**6" Compacted Subgrade**

| Item # | Location | Sta: to Sta: | Total SY |
|---|---|---|---|
| | Parking Lot | N/A | 200 |
| | Access Road Intersection | 0+05.34 to 0+40.34 | 260 |
| | Access Road | 0+40.34 to 3+67.28 | 1200 |
| | | **Total** | **1660** |

**4" Base Course**

| Item # | Location | Sta: to Sta: | Total SY | CU |
|---|---|---|---|---|
| | Parking Lot | N/A | 200 | 22 |
| | Access Road Intersection | 0+05.34 to 0+40.34 | 260 | 28.6 |
| | Access Road | 0+40.34 to 3+67.28 | 1100 | 121 |
| | | **Total** | **1560** | **171.6** |

**4" Hot Mix Asphalt SP-111**

| Item # | Location | Sta: to Sta: | Total SY |
|---|---|---|---|
| | Parking Lot | N/A | 172 |
| | Access Road Intersection | 0+05.34 to 0+40.34 | 260 |
| | | | |
| | | **Total** | **432** |

**5' Sidewalk**

| Item # | Location | Sta: | Total LF | SY |
|---|---|---|---|---|
| | Parking Lot | N/A | 0 | 0 |
| | Access Road | 1+19 to 4+06 | 287 | 159 |
| | | | | |
| | | **Total** | **287** | |

**Demolition and Removal of existing Concrete Tank Structure**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Existing 4 Million Gallon Concrete Tank | Tank Site | LS | 1 |
| | | | | |
| | | | | |
| | | | **Total** | **1** |

**Demolition, Removal and Salvage Chain Link Fence**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Chain Link Fence on Tank | Around Tennis Courts | LF | 630 |
| | Chain Link Fence Around Tank | Around Tank | LF | 542 |
| | | | | |
| | | | **Total** | **1172** |

**Demolition and Removal of existing Valve Vault and Manhole**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Concrete Valve Vault / Manhole | Between Tank and New Valve Vault | LS | 1 |
| | | | | |
| | | | | |
| | | | **Total** | **1** |

**Demolition and Removal of existing 20" Tank Overflow Line and 24" Tank Inlet/Outlet Line**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | 20" Tank Overflow Pipe | Between Tank and Valve Vault | LF | 30 |
| | 24" Inlet / Outlet Pipe | Between Tank and Valve Vault | LF | 85 |
| | | | | |
| | | | **Total** | **115** |

**Demolition and Removal of existing Rip-Rap at Concrete Curb Rundown and Salvage**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Rip-Rap | Curb Rundown Outlet | LS | 1 |
| | | | | |
| | | | | |
| | | | **Total** | **1** |

**Demolition and Removal of existing Barbed Wire Fence**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Barbed Wire Fence | Between Tank and Staging Area | LF | 495 |
| | Barbed Wire Fence | Along St. Michaels Dr | LF | 42 |
| | | | | |
| | | | **Total** | **537** |

**Demolition and Removal of existing Curb & Gutter**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Curb and Gutter | Tank Parking Lot | LF | 282 |
| | Curb and Gutter | Along St. Michaels Dr | LF | 266 |
| | Storm Water Curb Rundown | Between Tank and Staging Area | LF | 504 |
| | | | **Total** | **1052** |

**Demolition and Removal of existing Pavement**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | 2" Asphalt Pavement | Tank Parking Lot | SY | 524 |
| | | | | |
| | | | | |
| | | | **Total** | **524** |

**Demolition and Removal of existing Light Fixtures**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Pole Mounted Parking Lot Light | Tank Parking Lot | EA | 1 |
| | | | | |
| | | | | |
| | | | **Total** | **1** |

**Demolition and Removal of existing Electrical Conduit and Electrical Wires**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Electrical Conduit and Wire | From Street to Parking Lot Light | LF | 125 |
| | | | | |
| | | | | |
| | | | **Total** | **125** |

**Demolition and Removal of Existing Electrical Metering Pedestal**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Electrical Metering Pedestal | North-West Side of Parking Lot | EA | 1 |
| | | | | |
| | | | | |
| | | | **Total** | **1** |

**Demolition and Removal of existing Waterlines**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | 2" waterline to drinking fountain | Along North-West Side of Parking Lot & Tank | LS | 1 |
| | | | | |
| | | | | |
| | | | **Total** | **1** |

**Demolition and Removal of existing Perforated Tank Foundation and Under Drains**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | 4" Perforated Drain Pipe | Around and under Tank | LF | 540 |
| | 4" drain from Perforated Tank drain Pipe | From Tank to Storm Drain | LF | 35 |
| | | | | |
| | | | **Total** | **575** |

**Keystone Retaining Wall**

| Item # | Description | Location | Units | Total |
|---|---|---|---|---|
| | Wall W1 | Around Tank | SF | 1845 |
| | Wall W2 | Around Tank | SF | 1859 |
| | Wall W3 | Around Tank | SF | 581 |
| | Wall W4 | Around Tank | SF | 384 |
| | Wall W5 | Around Tank | SF | 163 |
| | | | | |
| | | | **Total** | **4832** |

**Type B (Class 1 crushed stone)**

| Item # | Description | Location | SF | FT. Thick | CF | CY |
|---|---|---|---|---|---|---|
| | Wall W1 | Around Tank | 1845 | 2 | 3690 | 137 |
| | Wall W2 | Around Tank | 1859 | 2 | 3718 | 138 |
| | Wall W3 | Around Tank | 581 | 2 | 1162 | 43 |
| | Wall W4 | Around Tank | 384 | 2 | 768 | 28 |
| | Wall W5 | Around Parking Lot | 163 | 2 | 326 | 12 |
| | Leveling Pad | Below Ret. Walls | 2712 | 0.5 | 1356 | 50 |
| | Foundation Drain | Around Tank | | | 1620 | 60 |
| | | | | | **Total** | **468** |

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| Rev # | Date | Description | By | Chk'd |
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CITY OF SANTA FE — SANTA FE, NM

CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
MISCELLANEOUS QUANTITIES

PETER G. FANT — NEW MEXICO — 12203 — LICENSED PROFESSIONAL ENGINEER

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

| Designed | Drawn | Checked |
|---|---|---|
| ECY | BE | PGF |

Date: 2/19/2016
Scale: Horiz: N/A Vert: N/A
Project No: 9223842
Sheet: G-5

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| Control Point Table | | | | |
|---|---|---|---|---|
| Point # | Raw Description | Elevation | Northing | Easting |
| 100 | CP SMA 100 | 7031.703 | 1694848.900 | 1731811.493 |
| 101 | CP MAG NAIL | 7030.858 | 1694929.864 | 1731799.871 |
| 102 | CP 60d NAIL | 7033.565 | 1695007.272 | 1731867.987 |
| 103 | CP MAG NAIL | 7027.337 | 1695107.113 | 1731800.282 |
| 111 | CP 60d NAIL | 7012.584 | 1695227.333 | 1731543.091 |
| 104 | CP MAG NAIL | 7016.661 | 1695199.696 | 1731724.085 |
| 105 | CP 60d NAIL | 7019.992 | 1695028.232 | 1731594.397 |
| 106 | CP 60d NAIL | 7023.781 | 1694903.832 | 1731726.792 |

NOTES:

1. COORDINATES ARE STATE PLANE, NEW MEXICO CENTRAL ZONE, NAD 83, U.S. SURVEY FEET (GRID).
2. THE VERTICAL DATUM IS NAVD 88.
3. DISTANCES SHOWN ARE GRID DISTANCES.
4. BEARINGS SHOWN ARE AT GRID BEARINGS.

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT EXISTING SITE PLAN & SURVEY CONTROL

PETER G. FANT NEW MEXICO 12203 LICENSED PROFESSIONAL ENGINEER

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Scale: Horiz: 1" = 50 FT
Vert:

Project No: 9223842

Sheet: G-6

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NOTE:

LOCATION OF EXISTING UTILITIES AS SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY LOCATION IN FIELD AND NOTIFY ENGINEER OF ANY SIZE & MATERIAL DISCREPANCIES.

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# EXISTING TANK PLAN

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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|---|---|---|
| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: 1" = 20 FT
Vert:

Project No: 9223842

Sheet: G-7

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NOTE:

LOCATION OF EXISTING UTILITIES AS SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY LOCATION IN FIELD AND NOTIFY ENGINEER OF ANY SIZE & MATERIAL DISCREPANCIES.

CONTRACTOR TO REMOVE AND SALVAGE 630 LF OF EXISTING CHAIN LINK FENCE AND DELIVER TO CITY OF SANTA FE SALVAGE YARD AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

CONTRACTOR TO REMOVE 68 LF OF 5' CONCRETE RAMP AND DISPOSE OF AT AN APPROPRIATE FACILITY IN ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS.

CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER TO REMOVE EXITING METERING PEDESTAL

CONTRACTOR TO REMOVE 125 LF OF ELECTRIC CONDUIT, WIRE & LIGHTING FIXTURE AND DISPOSE OF AT AN APPROPRIATE FACILITY IN ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS.

EXISTING 2" WATERLINE TO REMAIN IN-PLACE

CONTRACTOR TO REMOVE AND SALVAGE 542 LF OF EXISTING CHAIN LINK FENCE AND DELIVER TO CITY OF SANTA FE SALVAGE YARD AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

CONTRACTOR TO CUT, CAP AND ABANDON 2" WATER LINE TO METER. REMOVE 125 LF TO TANK

SEE SHEETS CD-2 - CD-5 FOR DEMOLITION AND EXCAVATION PLANS FOR EXISTING TANK

CONTRACTOR TO REMOVE EXISTING VALVE PIT & MANHOLE

CUT ASPHALT AT PROPERTY LINE

CUT CURB AT PROPERTY LINE

CONTRACTOR TO REMOVE 85 LF OF 24" PIPE BETWEEN TANK AND VALVE VAULT

CONTRACTOR TO REMOVE 282 LF OF CURB & GUTTER AND DISPOSE OF AT AN APPROPRIATE FACILITY IN ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS.

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING LIGHT FIXTURE

CONTRACTOR TO REMOVE 30 LF OF 20" PIPE BETWEEN TANK AND POINT OF NEW OVERFLOW CONNECTION AS SHOWN ON SHEET M-2.

CONTRACTOR TO REMOVE 4720 SF OF ASPHALT AND DISPOSE OF AT AN APPROPRIATE FACILITY IN ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS.

CONTRACTOR TO REMOVE 252 LF OF CURB RUN DOWN AND DISPOSE OF AT AN APPROPRIATE FACILITY IN ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS.

CONTRACTOR TO REMOVE AND SALVAGE (TO THE EXTENT POSSIBLE) THE RIP-RAP ROCK (36 SY) AND THE CULVERT DISCHARGE AND REUSE FOR WIRE ENCLOSE RIP-RAP DURING CONSTRUCTION.

LIMITS OF EXCAVATION

CONTRACTOR TO REMOVE 495 LF OF BARBED WIRE FENCE AND DISPOSE OF AT AN APPROPRIATE FACILITY IN ACCORDANCE WITH ALL LOCAL STATE AND FEDERAL REGULATIONS.

CONTRACTOR STAGING AREA

LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
- Ex Drain Line
- Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
- Ex STL Fence
- Ex Barb Wire Fence
- Ex Easement
- Ex Contours - Major
- Ex Contours - Minor
- Profile Alignments
- Prop Road Alignment
- Proposed Fence
- Prop Contours - Major
- Prop Contours - Major
- Prop Daylight Line
- Prop Storm Drain
- Riprap

SCALE: 1" = 20 FT.

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT DEMOLITION SITE PLAN

PETER G. FANI NEW MEXICO 12203 LICENSED PROFESSIONAL ENGINEER

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED.

| Designed | Drawn | Checked |
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| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: 1" = 20 FT
Vert:

Project No: 9223842

Sheet: CD-1

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NOTE:

LOCATION OF EXISTING UTILITIES AS SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY LOCATION IN FIELD AND NOTIFY ENGINEER OF ANY SIZE & MATERIAL DISCREPANCIES.

NOTES:

- SEE SHEET CD-5 FOR EXCAVATION SEQUENCE.
- SEE SHEETS CD-2, CD-3, CD-4, CD-5 & CD-6 FOR DEMOLITION SEQUENCE.

CONTRACTOR TO PROVIDE SOIL NAILING PER SHEET CD-5 & CD-6

CUT WALL PER SHEET CD-6

CONTRACTOR SHALL NOT GRADE WITHIN FENCED AREA

TEMPORARY ACCESS RAMP

8%

CONTRACTOR STAGING AREA

CONTRACTOR TO PROVIDE SOIL NAILING PER SHEET CD-5 & CD-6

## LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
- Ex Drain Line
- Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
- Ex STL Fence
- Ex Barb Wire Fence
- Ex Easement
- Ex Contours - Major
- Ex Contours - Minor
- Profile Alignments
- Prop Road Alignment
- Proposed Fence
- Prop Contours - Major
- Prop Contours - Major
- Prop Daylight Line
- Prop Storm Drain
- Riprap

SCALE: 1" = 20 FT.

| Rev #: | Date | Description | By | Chk'd |
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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK EXCAVATION PLAN

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

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Date: 2/19/2016

Scale: Horiz: N/A
Vert: N/A

Project No: 9223842

Sheet: CD-2

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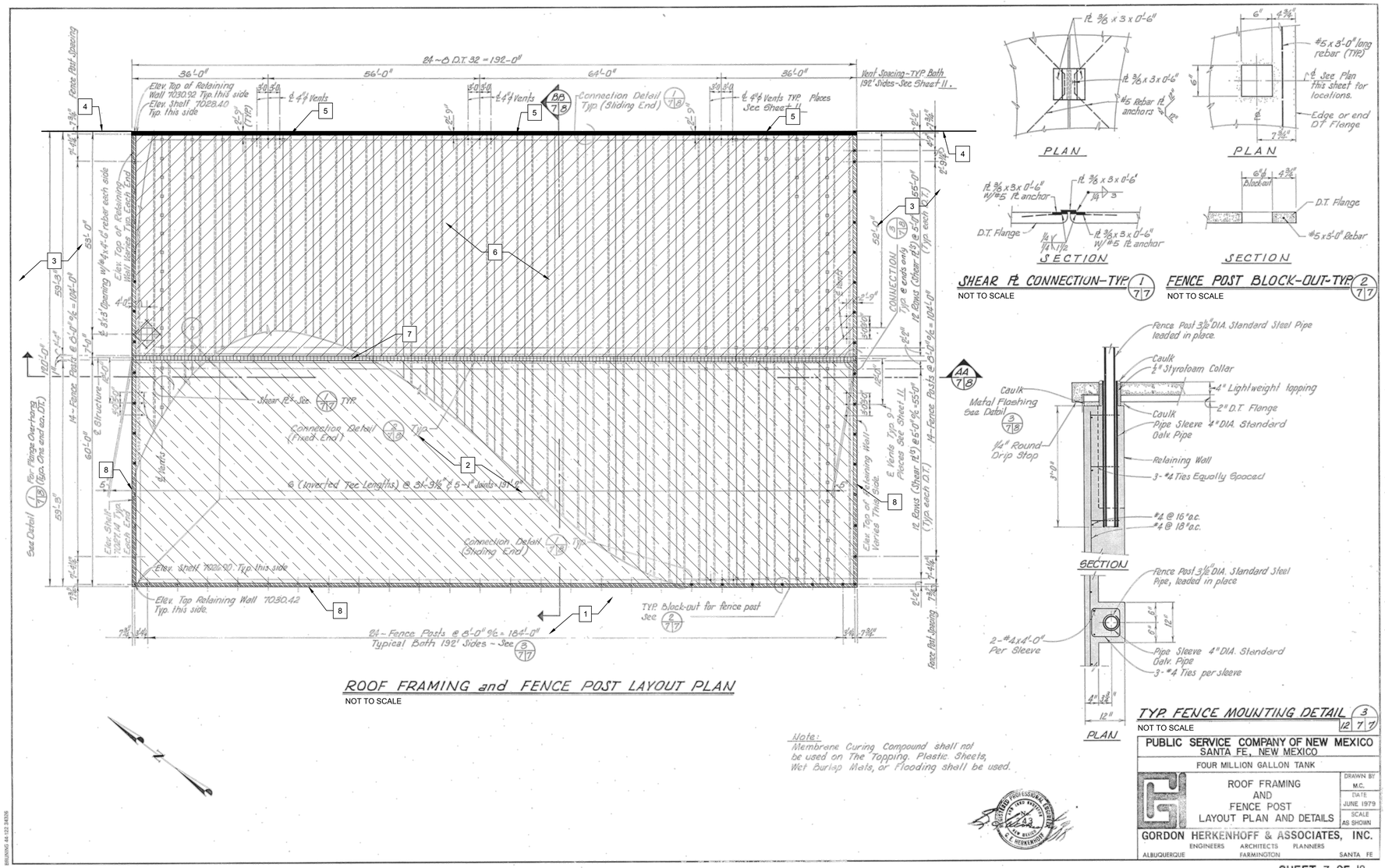


NOTES:

A. DEMOLITION & EXCAVATION SEQUENCE IS BASED UPON CONSTRUCTION DRAWINGS PROVIDED BY OWNER. DRAWINGS WERE DESIGNED BY GORDON HERKENHOFF & ASSOCIATES, INC. DATED JUNE 1979 AND ARE FOR INFORMATION ONLY TO ASSIST THE CONTRACTOR WITH DEMOLITION ONLY AS SHOWN. IF DURING DEMOLITION, STRUCTURE VARIES FROM EXISTING CONSTRUCTION DRAWINGS, CONTRACTOR TO VERIFY WITH ENGINEER BEFORE PROCEEDING WITH DEMOLITION.

B. SEE SHEETS CD-2 THOUGH CD-6 FOR EXTENT OF ITEMS DEMOLITION. SEE THE DEMOLITION SEQUENCE BELOW AND KEY NOTES ON EACH SHEET TO DETERMINE WHEN ITEM IS TO BE REMOVED.

DEMOLITION SEQUENCE:

1. EXCAVATE DIRT SURROUNDING THE EXISTING TANK TO LIMITS SHOWN AT THE 1 SIDE.
2. REMOVE 4" TOPPING SLAB W/ 8DT32 (DOUBLE T'S) AT SOUTHWEST SIDE OF EXISTING TANK, LEAVE 28 IT44 (INVERTED T) INTACT AT CENTER OF TANK UNTIL STEP 5.
3. EXCAVATE SOILS IN 5'-0" LIFTS
4. PROVIDE SOIL NAIL & GUNITE FOR 5'-0" LIFTS PER SOIL NAIL CONTRACTOR'S RECOMMENDATIONS REPEAT STEPS 3 & 4 TO BOTTOM OF RETAINING WALL FOOTING
5. PROVIDE SOIL NAILING AT NE WALL, DESIGN AND CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY EXPERIENCED SOIL NAILING CONTRACTOR. ACCEPTABLE DESIGN/CONTRACTOR SHALL BE SCHNABEL FOUNDATION COMPANY (303) 696-7268 OR HAYWARD BAKER (303) 469-1136. NE WALL SHALL BE FULLY SUPPORTED PRIOR TO PROCEEDING WITH REMAINDER OF THE DEMOLITION SEQUENCE.
6. REMOVE TOPPING SLAB AND 8DT32 (DOUBLE T) AT NE END OF EXISTING TANK.
7. REMOVE 28IT 44 AT CENTER OF TANK AFTER TOPPING SLAB AND ALL 8DT32'S ARE REMOVED
8. DEMO EXISTING RETAINING WALLS **EXCEPT** NE WALL.
9. DEMO INTERIOR CONCRETE COLUMNS.
10. DEMO EXISTING TANK SLAB AND EXCAVATE SOIL BEHIND SLAB AT 5' LIFT. PROVIDE SOIL NAIL AND GUNITE FOR 5'-0" LIFT PER SOIL NAIL CONTRACTOR. SOIL NAIL TO SET UP PER RECOMMENDATIONS AND REPEAT IN 5'-0" LIFTS TO BOTTOM OF TANK.
11. EXCAVATE DIRT SURROUNDING THE BOTTOM OF THE EXISTING TANK TO LIMITS SHOWN AT THE THREE SIDES IN 5' LIFTS
12. DEMO EXISTING TANK WALL IN 5' LIFTS FOLLOWING STEP. ALTERNATE STEPS 11 AND 12 TO EXISTING FINISHED FLOOR
13. DEMO EXISTING CONCRETE SLAB IN TANK AND FOUNDATIONS

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT DEMOLITION SEQUENCE PLAN VIEW

GRETA Y. QUINTANA NEW MEXICO 13561 PROFESSIONAL ENGINEER 2/19/16

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

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Date: 2/19/2016

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Project No: 9223842

Sheet: CD-3

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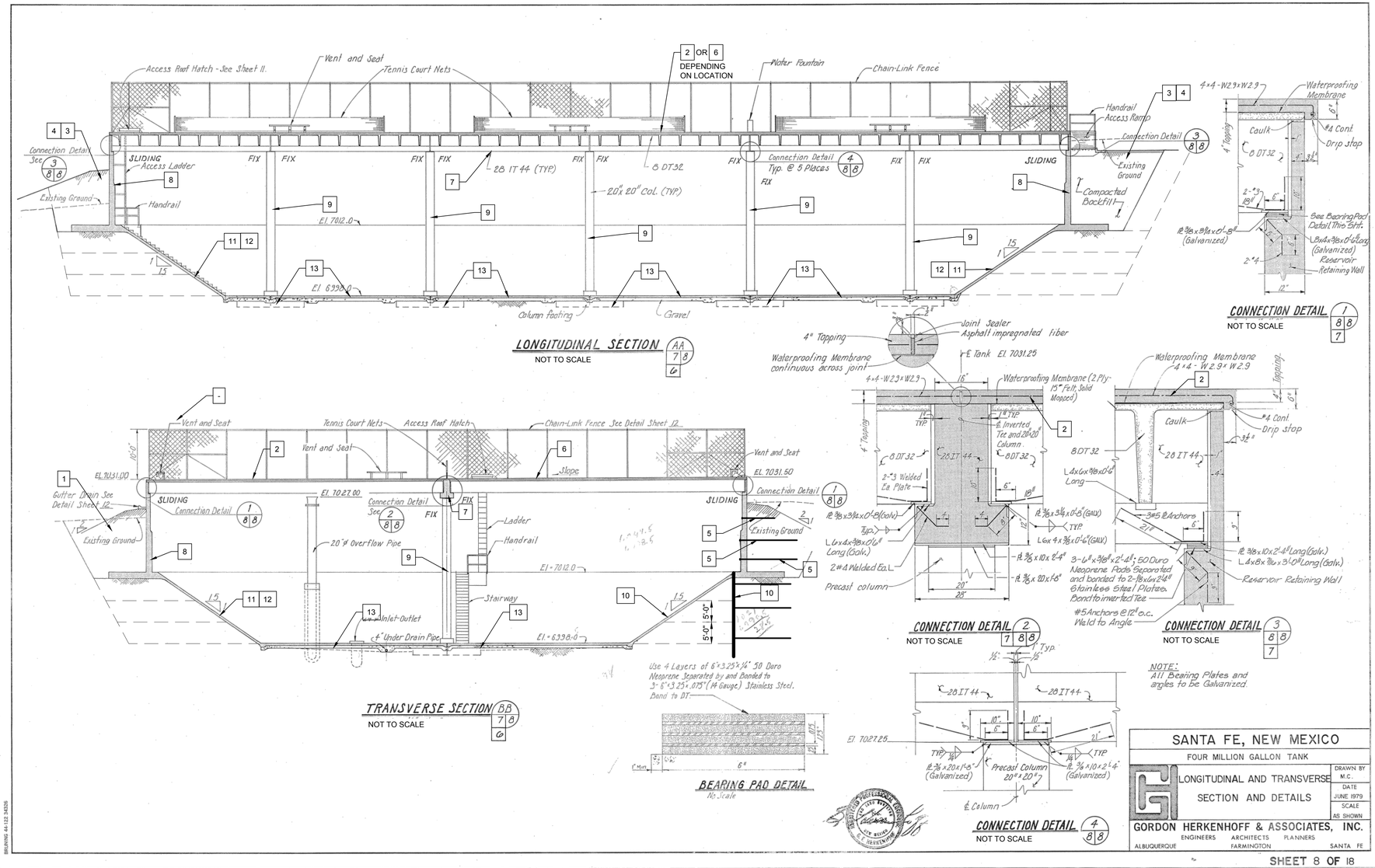


NOTES:

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B. SEE SHEETS CD-2 THOUGH CD-6 FOR EXTENT OF ITEMS DEMOLITION. SEE THE DEMOLITION SEQUENCE BELOW AND KEY NOTES ON EACH SHEET TO DETERMINE WHEN ITEM IS TO BE REMOVED.

DEMOLITION SEQUENCE:

1. EXCAVATE DIRT SURROUNDING THE EXISTING TANK TO LIMITS SHOWN AT THE 1 SIDE.
2. REMOVE 4" TOPPING SLAB W/ 8DT32 (DOUBLE T'S) AT SOUTHWEST SIDE OF EXISTING TANK, LEAVE 28 IT44 (INVERTED T) INTACT AT CENTER OF TANK UNTIL STEP 5.
3. EXCAVATE SOILS IN 5'-0" LIFTS
4. PROVIDE SOIL NAIL & GUNITE FOR 5'-0" LIFTS PER SOIL NAIL CONTRACTOR'S RECOMMENDATIONS REPEAT STEPS 3 & 4 TO BOTTOM OF RETAINING WALL FOOTING
5. PROVIDE SOIL NAILING AT NE WALL, DESIGN AND CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY EXPERIENCED SOIL NAILING CONTRACTOR. ACCEPTABLE DESIGN/CONTRACTOR SHALL BE SCHNABEL FOUNDATION COMPANY (303) 696-7268 OR HAYWARD BAKER (303) 469-1136. NE WALL SHALL BE FULLY SUPPORTED PRIOR TO PROCEEDING WITH REMAINDER OF THE DEMOLITION SEQUENCE.
6. REMOVE TOPPING SLAB AND 8DT32 (DOUBLE T) AT NE END OF EXISTING TANK.
7. REMOVE 28IT 44 AT CENTER OF TANK AFTER TOPPING SLAB AND ALL 8DT32'S ARE REMOVED
8. DEMO EXISTING RETAINING WALLS **EXCEPT** NE WALL.
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10. DEMO EXISTING TANK SLAB AND EXCAVATE SOIL BEHIND SLAB AT 5' LIFT. PROVIDE SOIL NAIL AND GUNITE FOR 5'-0" LIFT PER SOIL NAIL CONTRACTOR. SOIL NAIL TO SET UP PER RECOMMENDATIONS AND REPEAT IN 5'-0" LIFTS TO BOTTOM OF TANK.
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12. DEMO EXISTING TANK WALL IN 5' LIFTS FOLLOWING STEP. ALTERNATE STEPS 11 AND 12 TO EXISTING FINISHED FLOOR
13. DEMO EXISTING CONCRETE SLAB IN TANK AND FOUNDATIONS

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT DEMOLITION SEQUENCE SECTIONS & DETAILS

GRETA Y. QUINTANA NEW MEXICO 13561 PROFESSIONAL ENGINEER 2/19/16

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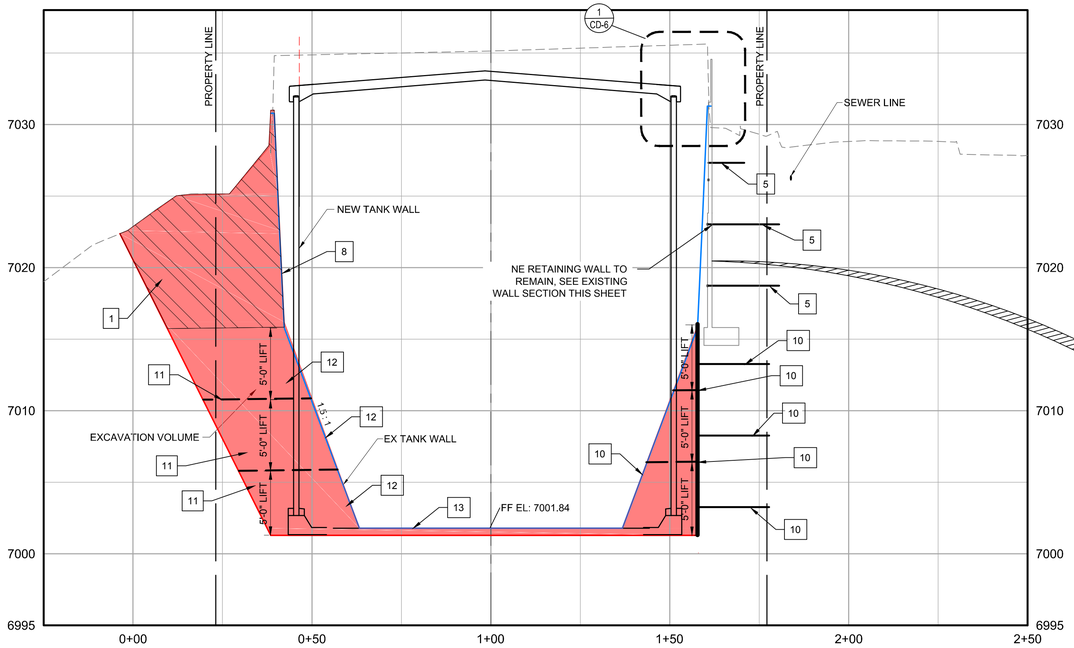
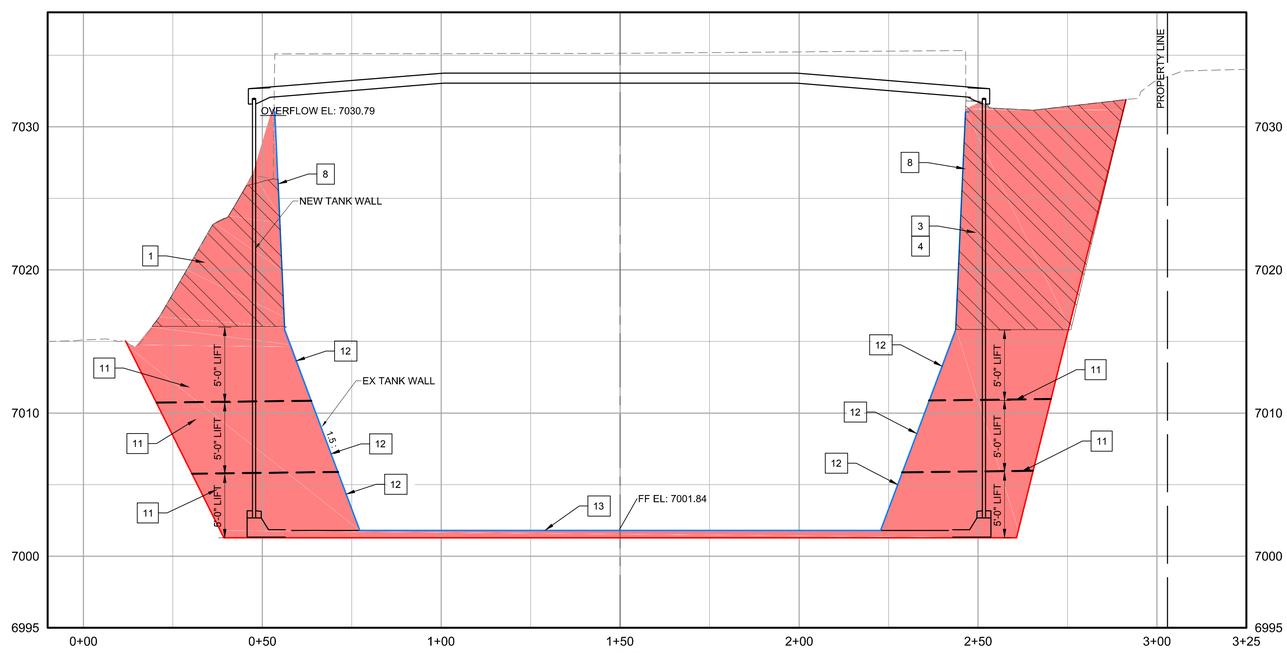


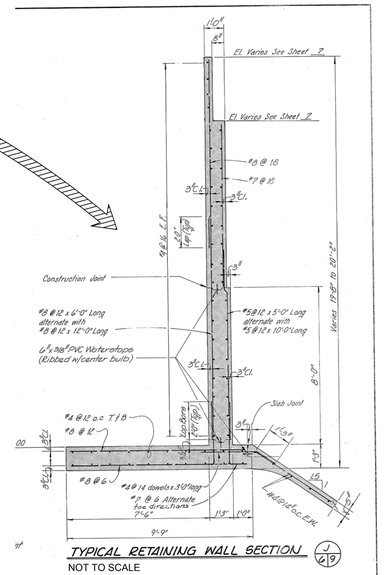

## SECTION B-B

SCALE: HORIZ. 1" = 20 FT
VERT. 1" = 5 FT




## SECTION 1-1

SCALE: HORIZ. 1" = 20 FT
VERT. 1" = 5 FT




TYPICAL RETAINING WALL SECTION

NOT TO SCALE

EXISTING RETAINING WALL SECTION FOR INFORMATION ONLY, INFORMATION PROVIDED TO ASSIST WITH SOIL NAILING DESIGN

PUBLIC SERVICE COMPANY OF NEW MEXICO
SANTA FE, NEW MEXICO
FOUR MILLION GALLON TANK
COLUMN, FOOTING & STAIR DETAILS & TYPICAL WALL SECTIONS
DRAWN BY A.G.
DATE JUNE, 1979
SCALE AS SHOWN
GORDON HERKENHOFF & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
ALBUQUERQUE FARMINGTON SANTA FE
SHEET 9 OF 18

NOTES:

A. DEMOLITION & EXCAVATION SEQUENCE IS BASED UPON CONSTRUCTION DRAWINGS PROVIDED BY OWNER. DRAWINGS WERE DESIGNED BY GORDON HERKENHOFF & ASSOCIATES, INC. DATED JUNE 1979 AND ARE FOR INFORMATION ONLY TO ASSIST THE CONTRACTOR WITH DEMOLITION ONLY AS SHOWN. IF DURING DEMOLITION, STRUCTURE VARIES FROM EXISTING CONSTRUCTION DRAWINGS, CONTRACTOR TO VERIFY WITH ENGINEER BEFORE PROCEEDING WITH DEMOLITION.

B. SEE SHEETS CD-2 THOUGH CD-6 FOR EXTENT OF ITEMS DEMOLITION. SEE THE DEMOLITION SEQUENCE BELOW AND KEY NOTES ON EACH SHEET TO DETERMINE WHEN ITEM IS TO BE REMOVED.

DEMOLITION SEQUENCE:

1. EXCAVATE DIRT SURROUNDING THE EXISTING TANK TO LIMITS SHOWN AT THE 1 SIDE.
2. REMOVE 4" TOPPING SLAB W/ 8DT32 (DOUBLE T'S) AT SOUTHWEST SIDE OF EXISTING TANK, LEAVE 28 IT44 (INVERTED T) INTACT AT CENTER OF TANK UNTIL STEP 5.
3. EXCAVATE SOILS IN 5'-0" LIFTS
4. PROVIDE SOIL NAIL & GUNITE FOR 5'-0" LIFTS PER SOIL NAIL CONTRACTOR'S RECOMMENDATIONS REPEAT STEPS 3 & 4 TO BOTTOM OF RETAINING WALL FOOTING
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13. DEMO EXISTING CONCRETE SLAB IN TANK AND FOUNDATIONS

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SCALE: 1" = 20 FT.

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# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT DEMOLITION EXCAVATION SEQUENCE

GRETA Y. QUINTANA NEW MEXICO 13561 PROFESSIONAL ENGINEER 2/19/16

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| GYQ | GF | GYQ |

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Scale: Horiz: AS SHOWN Vert: AS SHOWN
Project No: 9223842
Sheet: CD-5

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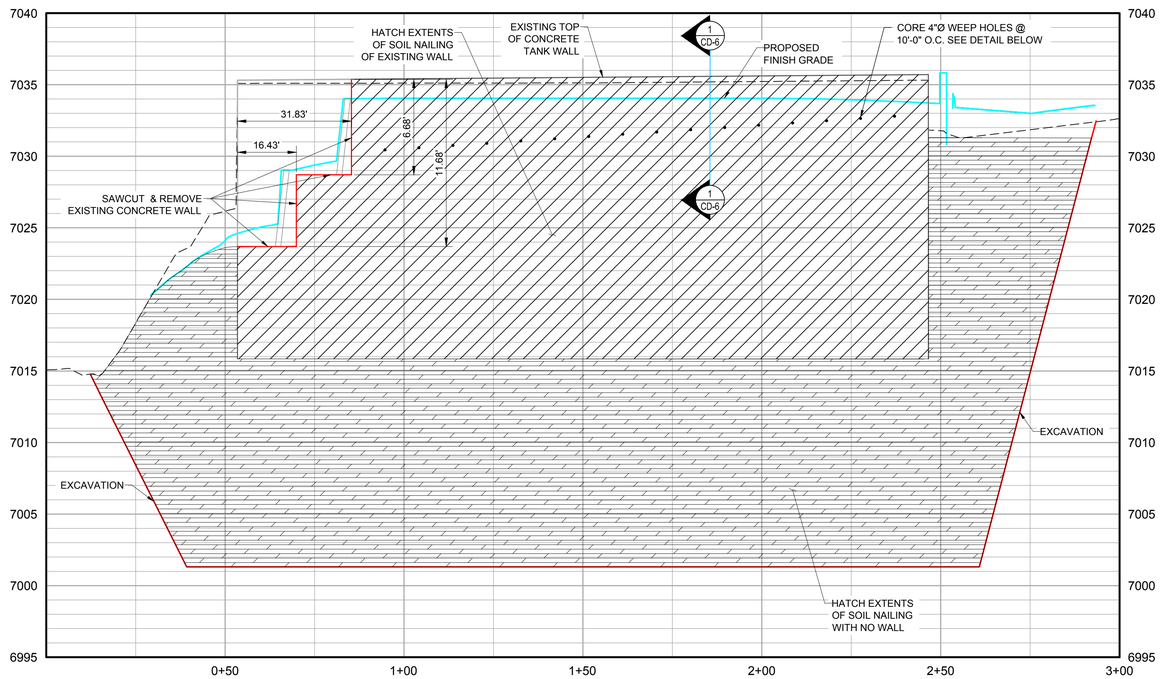
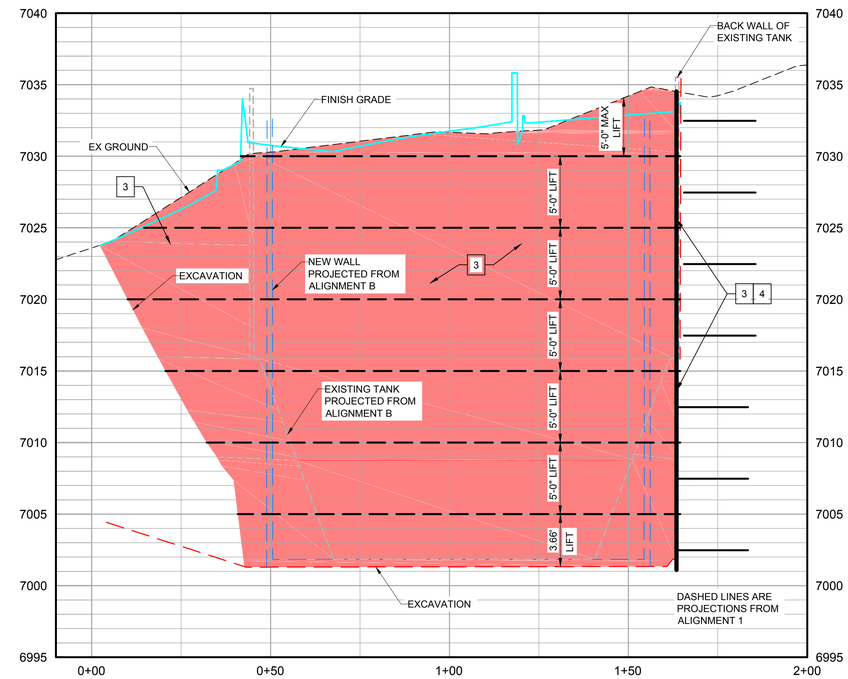



## ELEVATION 2-2

SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'




## SECTION A-A

SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

## LEGEND

- EXISTING CONCRETE TANK WALL PROVIDE SOIL NAILING
- PROVIDE SOIL NAILING

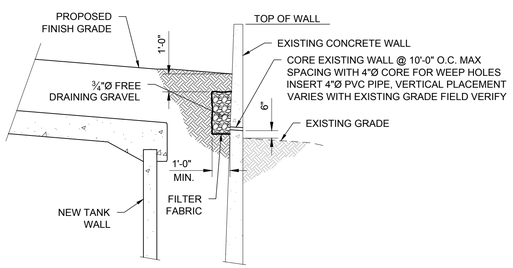
NOTES:

A. DEMOLITION & EXCAVATION SEQUENCE IS BASED UPON CONSTRUCTION DRAWINGS PROVIDED BY OWNER. DRAWINGS WERE DESIGNED BY GORDON HERKENHOFF & ASSOCIATES, INC. DATED JUNE 1979 AND ARE FOR INFORMATION ONLY TO ASSIST THE CONTRACTOR WITH DEMOLITION ONLY AS SHOWN. IF DURING DEMOLITION, STRUCTURE VARIES FROM EXISTING CONSTRUCTION DRAWINGS, CONTRACTOR TO VERIFY WITH ENGINEER BEFORE PROCEEDING WITH DEMOLITION.

B. SEE SHEETS CD-2 THOUGH CD-6 FOR EXTENT OF ITEMS DEMOLITION. SEE THE DEMOLITION SEQUENCE BELOW AND KEY NOTES ON EACH SHEET TO DETERMINE WHEN ITEM IS TO BE REMOVED.

DEMOLITION SEQUENCE:

1. EXCAVATE DIRT SURROUNDING THE EXISTING TANK TO LIMITS SHOWN AT THE 1 SIDE.
2. REMOVE 4" TOPPING SLAB W/ 8DT32 (DOUBLE T'S) AT SOUTHWEST SIDE OF EXISTING TANK, LEAVE 28 IT44 (INVERTED T) INTACT AT CENTER OF TANK UNTIL STEP 5.
3. EXCAVATE SOILS IN 5'-0" LIFTS
4. PROVIDE SOIL NAIL & GUNITE FOR 5'-0" LIFTS PER SOIL NAIL CONTRACTOR'S RECOMMENDATIONS REPEAT STEPS 3 & 4 TO BOTTOM OF RETAINING WALL FOOTING
5. PROVIDE SOIL NAILING AT NE WALL, DESIGN AND CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY EXPERIENCED SOIL NAILING CONTRACTOR. ACCEPTABLE DESIGN/CONTRACTOR SHALL BE SCHNABEL FOUNDATION COMPANY (303) 696-7268 OR HAYWARD BAKER (303) 469-1136. NE WALL SHALL BE FULLY SUPPORTED PRIOR TO PROCEEDING WITH REMAINDER OF THE DEMOLITION SEQUENCE.
6. REMOVE TOPPING SLAB AND 8DT32 (DOUBLE T) AT NE END OF EXISTING TANK.
7. REMOVE 28IT 44 AT CENTER OF TANK AFTER TOPPING SLAB AND ALL 8DT32'S ARE REMOVED
8. DEMO EXISTING RETAINING WALLS **EXCEPT** NE WALL.
9. DEMO INTERIOR CONCRETE COLUMNS.
10. DEMO EXISTING TANK SLAB AND EXCAVATE SOIL BEHIND SLAB AT 5' LIFT. PROVIDE SOIL NAIL AND GUNITE FOR 5'-0" LIFT PER SOIL NAIL CONTRACTOR. SOIL NAIL TO SET UP PER RECOMMENDATIONS AND REPEAT IN 5'-0" LIFTS TO BOTTOM OF TANK.
11. EXCAVATE DIRT SURROUNDING THE BOTTOM OF THE EXISTING TANK TO LIMITS SHOWN AT THE THREE SIDES IN 5' LIFTS
12. DEMO EXISTING TANK WALL IN 5' LIFTS FOLLOWING STEP. ALTERNATE STEPS 11 AND 12 TO EXISTING FINISHED FLOOR
13. DEMO EXISTING CONCRETE SLAB IN TANK AND FOUNDATIONS




## DETAIL 1

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT EXTENT OF SOIL NAILING

GRETA Y. QUINTANA NEW MEXICO 13561 PROFESSIONAL ENGINEER 2/19/16

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Date: 2/19/2016

Scale: Horiz: 1" = 20 FT
Vert: 1" = 5 FT

Project No: 9223842

Sheet: CD-6

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P:\9-CitySantaFe-HospitalTankReplacement(9223842)\CAD\ET-to Greta\WallSections.dwg , 2/19/2016 3:00:23 PM djb

NOTE:

LOCATION OF EXISTING UTILITIES AS SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY LOCATION IN FIELD AND NOTIFY ENGINEER OF ANY SIZE & MATERIAL DISCREPANCIES.

## LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
- Ex Drain Line
- Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
- Ex STL Fence
- Ex Barb Wire Fence
- Ex Easement
- Ex Contours - Major
- Ex Contours - Minor
- Profile Alignments
- Prop Road Alignment
- Proposed Fence
- Prop Contours - Major
- Prop Contours - Major
- Prop Daylight Line
- Prop Storm Drain
- Riprap

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# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK REPLACEMENT PLAN

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: N/A
Vert: N/A

Project No: 9223842

Sheet: C-1

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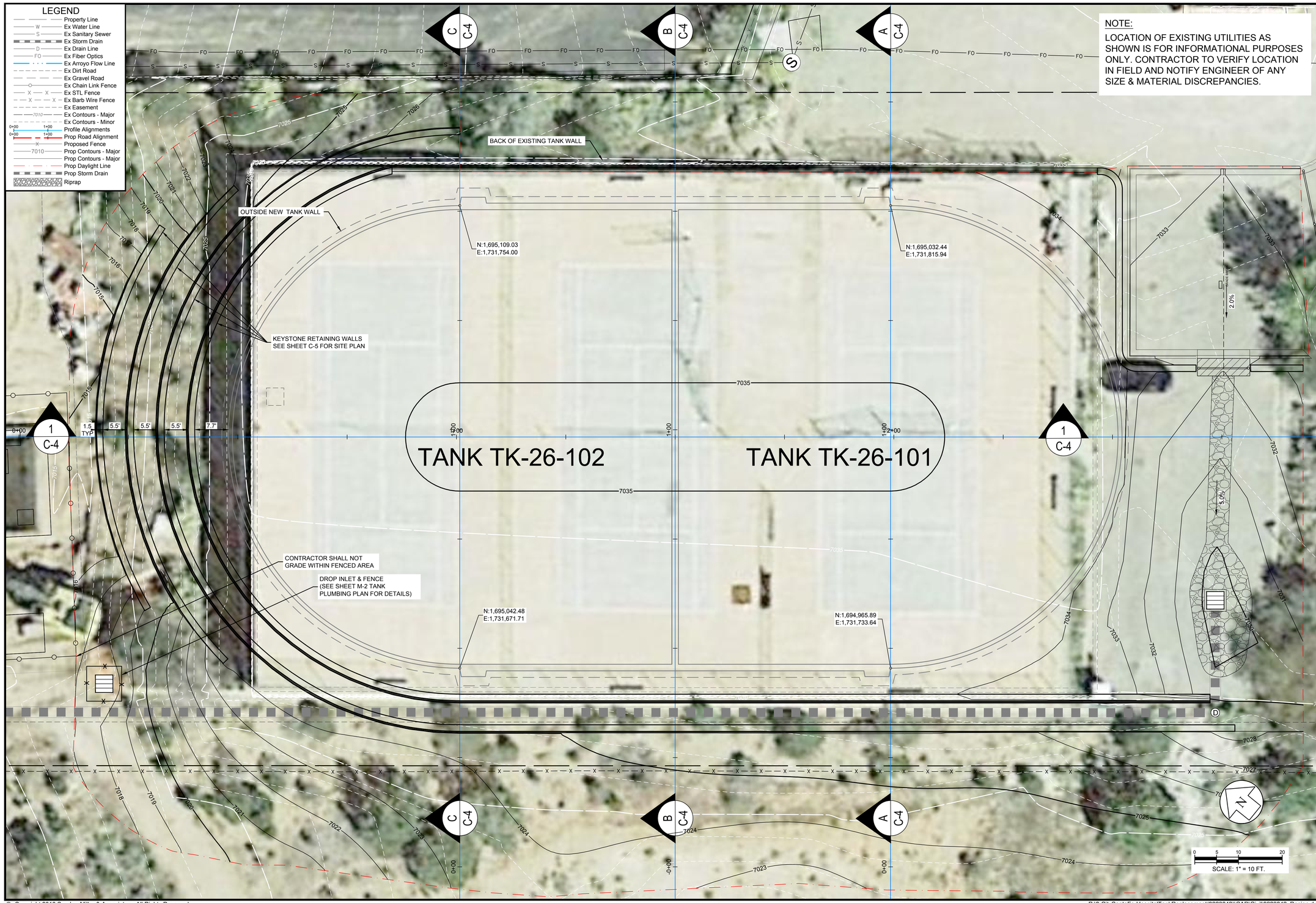


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# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK GRADING PLAN

PETER C. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Scale: Horiz: 1" = 10 FT
Vert: N/A

Project No: 9223842

Sheet: C-2

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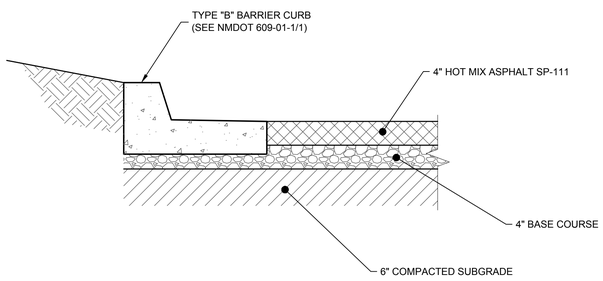
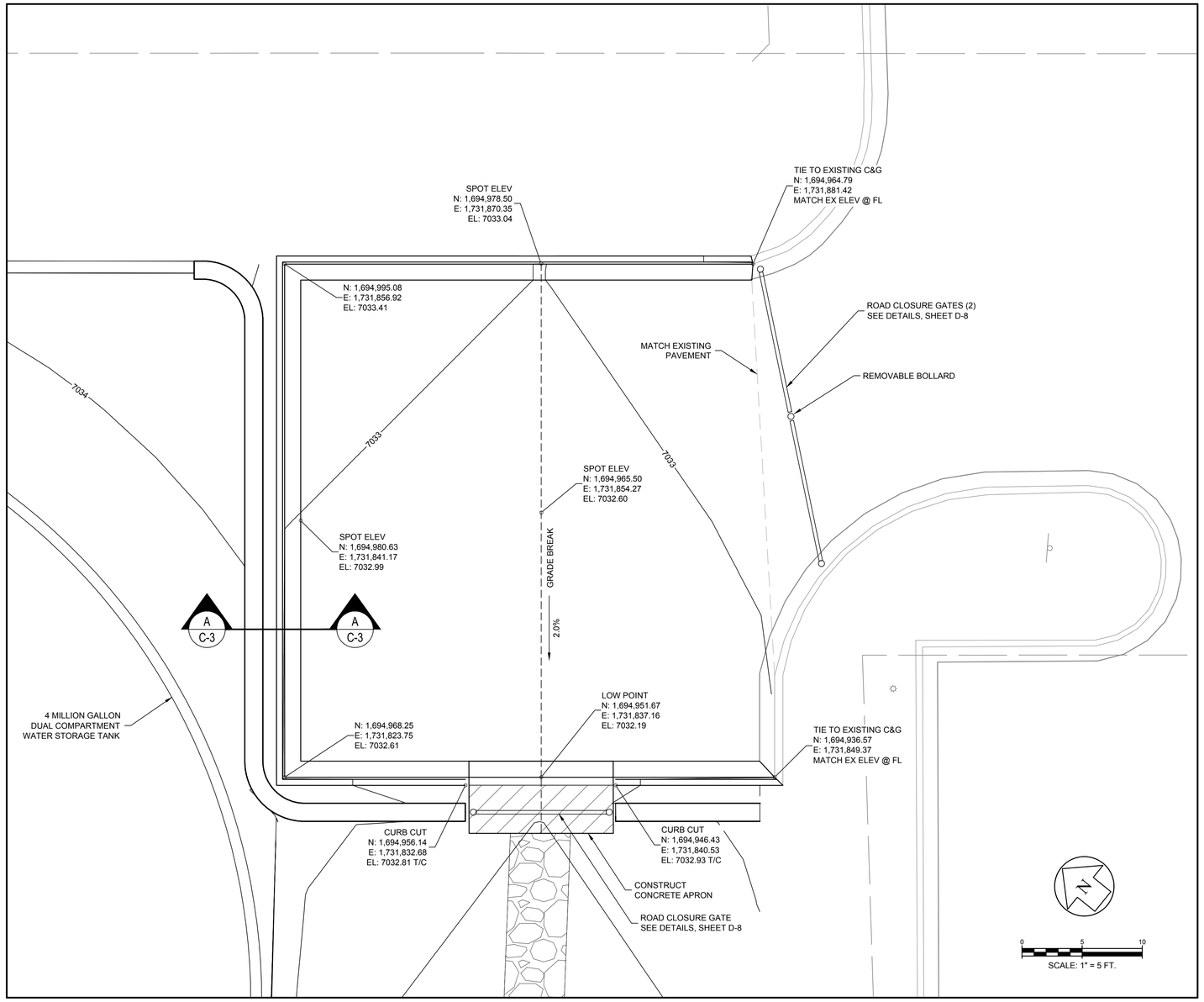



A / C-3 PAVEMENT, CURB & GUTTER SECTION
NOT TO SCALE




1 / C-3 PARKING LOT PLAN VIEW
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CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
PARKING LOT GEOMETRY PLAN

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Vert: N/A

Project No: 9223842

Sheet: C-3

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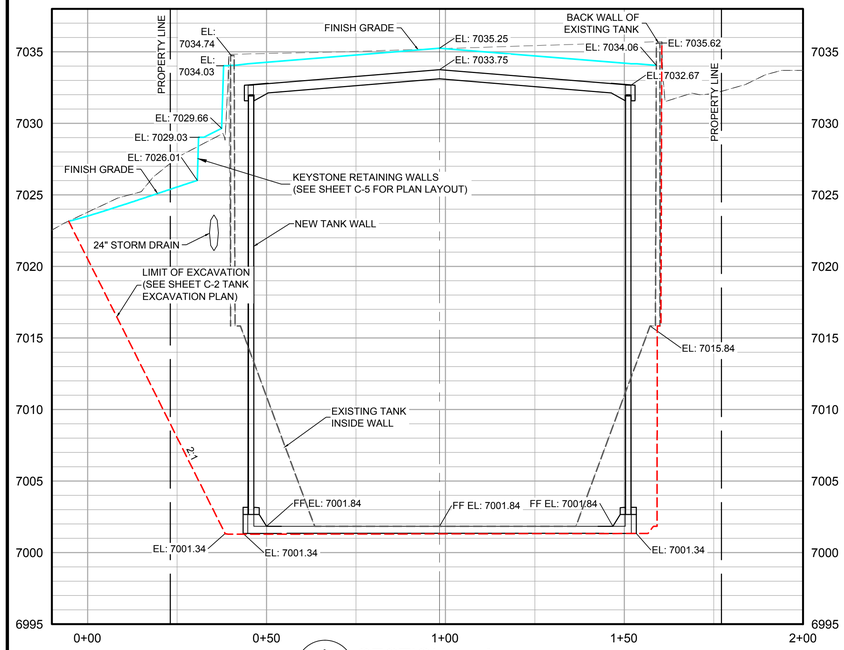
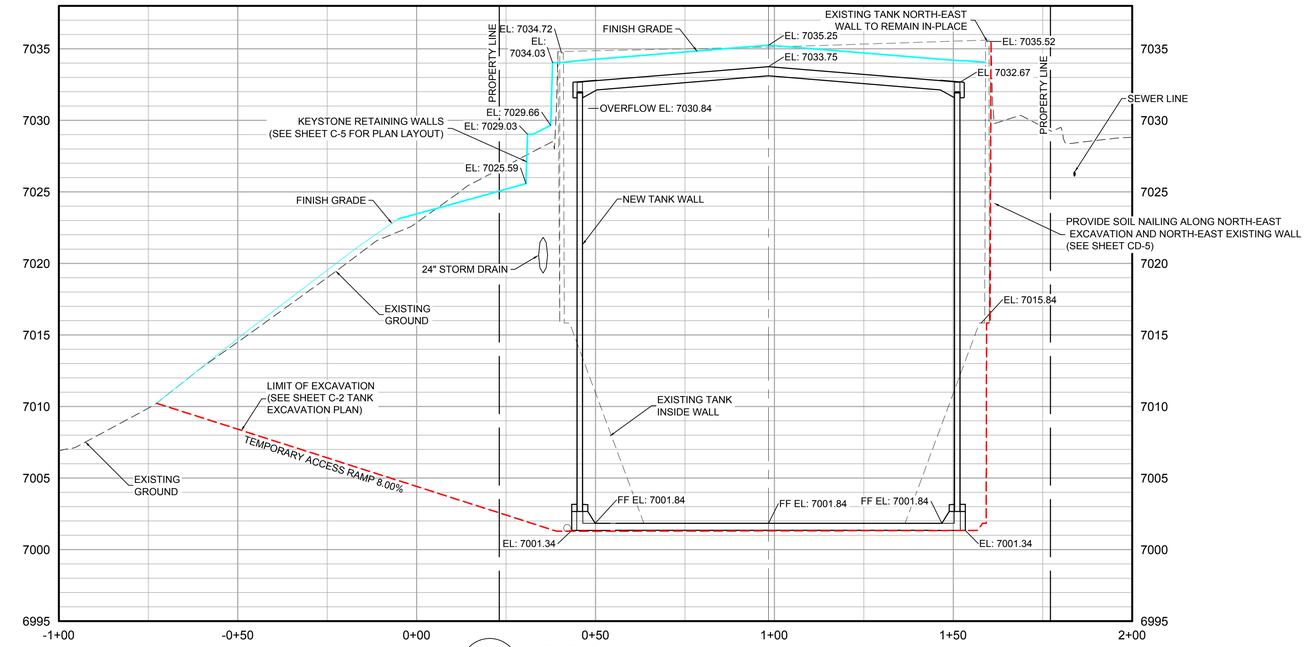


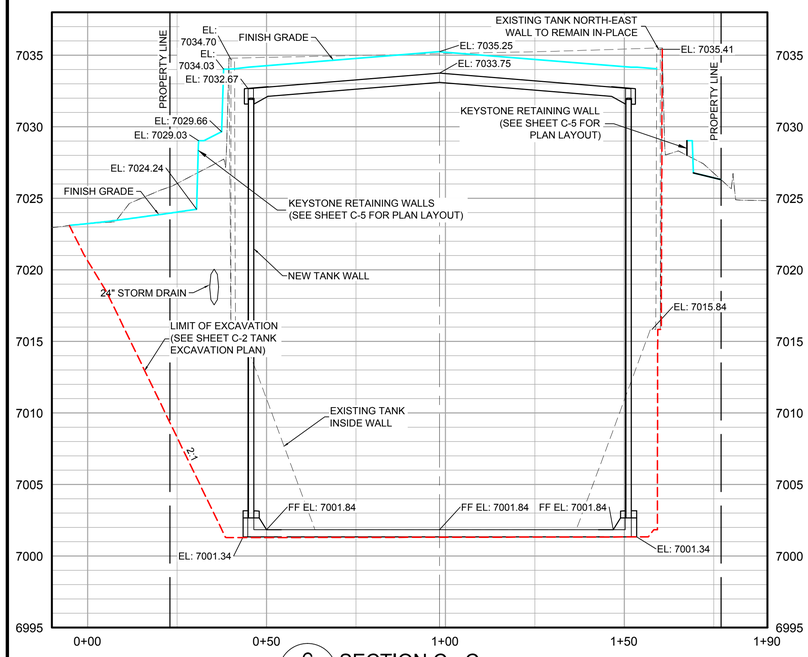

A / C-4 SECTION A - A

SCALE: HORIZ. 1" = 5 FT
VERT. 1" = 1 FT



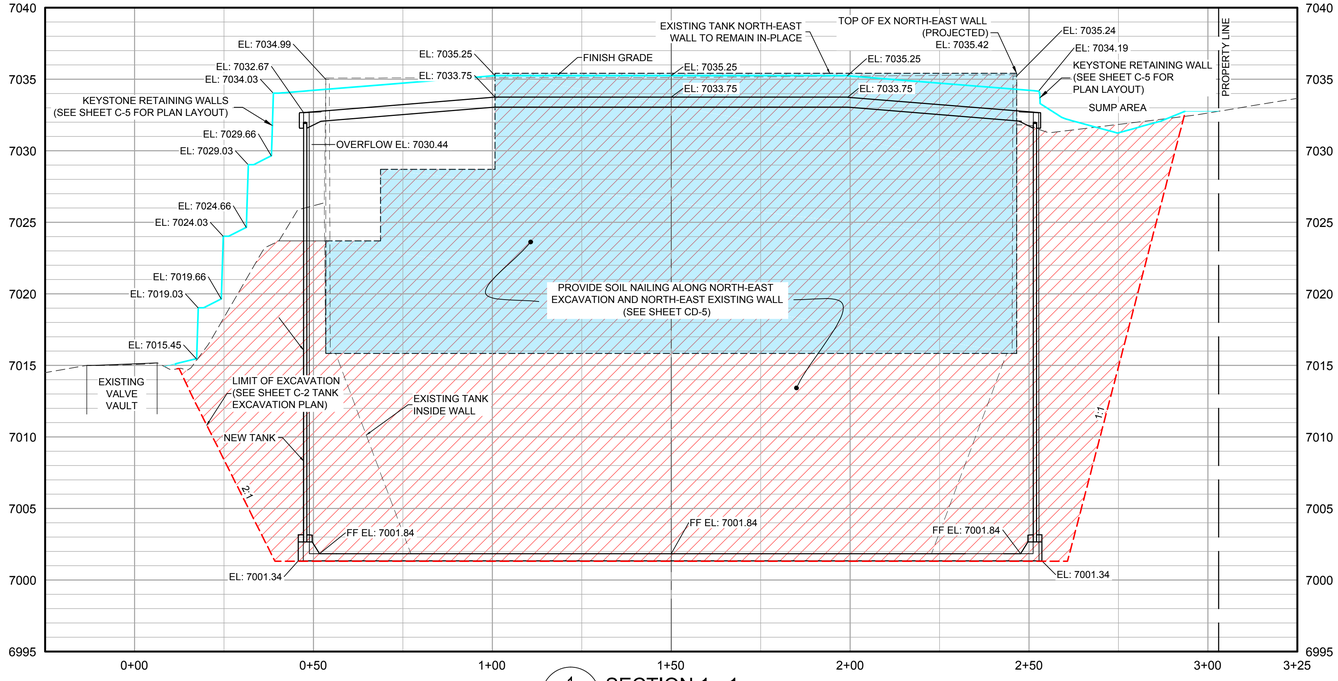

B / C-4 SECTION B - B

SCALE: HORIZ. 1" = 5 FT
VERT. 1" = 1 FT




C / C-4 SECTION C - C

SCALE: HORIZ. 1" = 5 FT
VERT. 1" = 1 FT




1 / C-4 SECTION 1 - 1

SCALE: HORIZ. 1" = 5 FT
VERT. 1" = 1 FT

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# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT TANK SECTIONS

PETER G. FANI
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Vert: 1" = 5 FT

Project No: 9223842

Sheet: C-4

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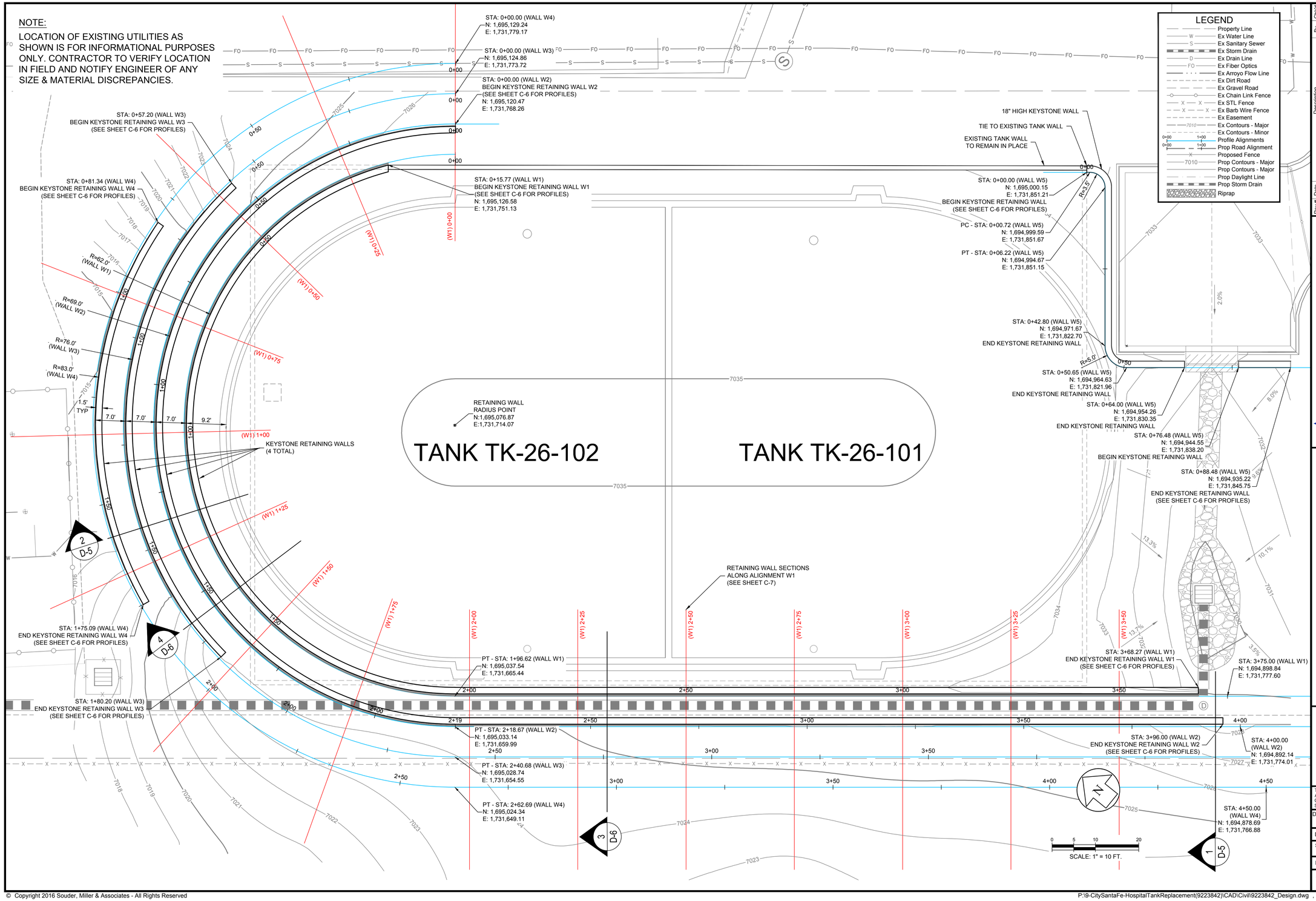


## LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
- Ex Drain Line
- Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
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- Prop Storm Drain
- Riprap

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# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# RETAINING WALL PLAN

PETER C. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Vert: N/A
Project No: 9223842
Sheet: C-5

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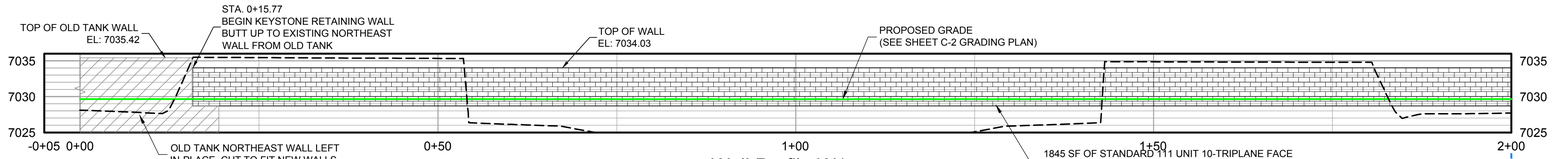
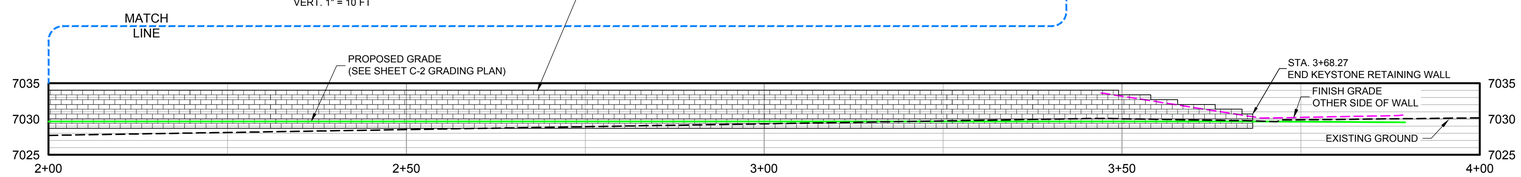



## Wall Profile W1

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT

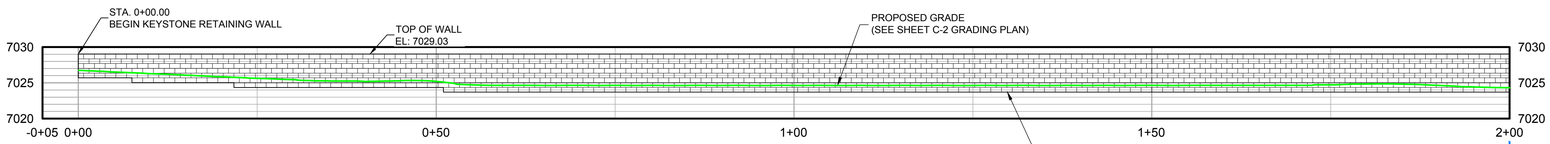
NOTE:

- INSTALLATION OF KEYSTONE WALL MUST CONFORM TO ALL MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS IN ADDITION TO THESE PLANS AND THE DESIGN INTENT THEY CONVEY.
- OWNER TO SELECT COLOR OF KEYSTONE BLOCK WALL AND CAP BLOCK.



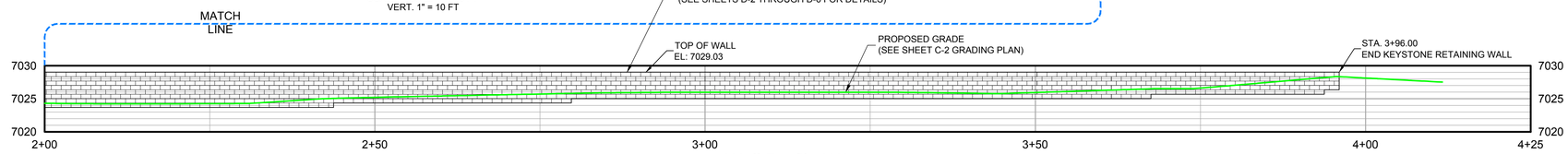

## Wall Profile W1

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT



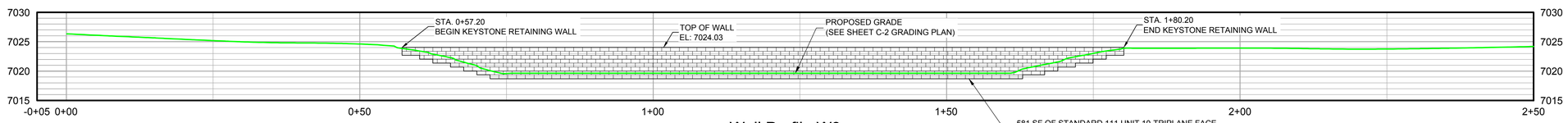

## Wall Profile W2

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT



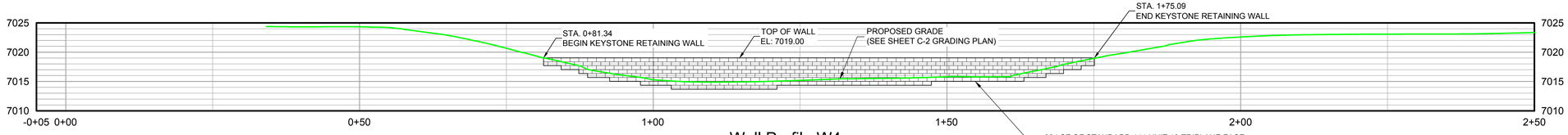

## Wall Profile W2

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT



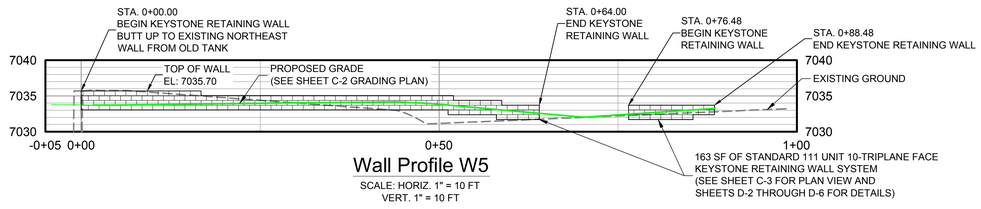

## Wall Profile W3

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT




## Wall Profile W4

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT




## Wall Profile W5

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 10 FT

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# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# RETAINING WALL PROFILES

PETER G. FANI
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Vert: 1" = 10 FT

Project No: 9223842

Sheet: C-6

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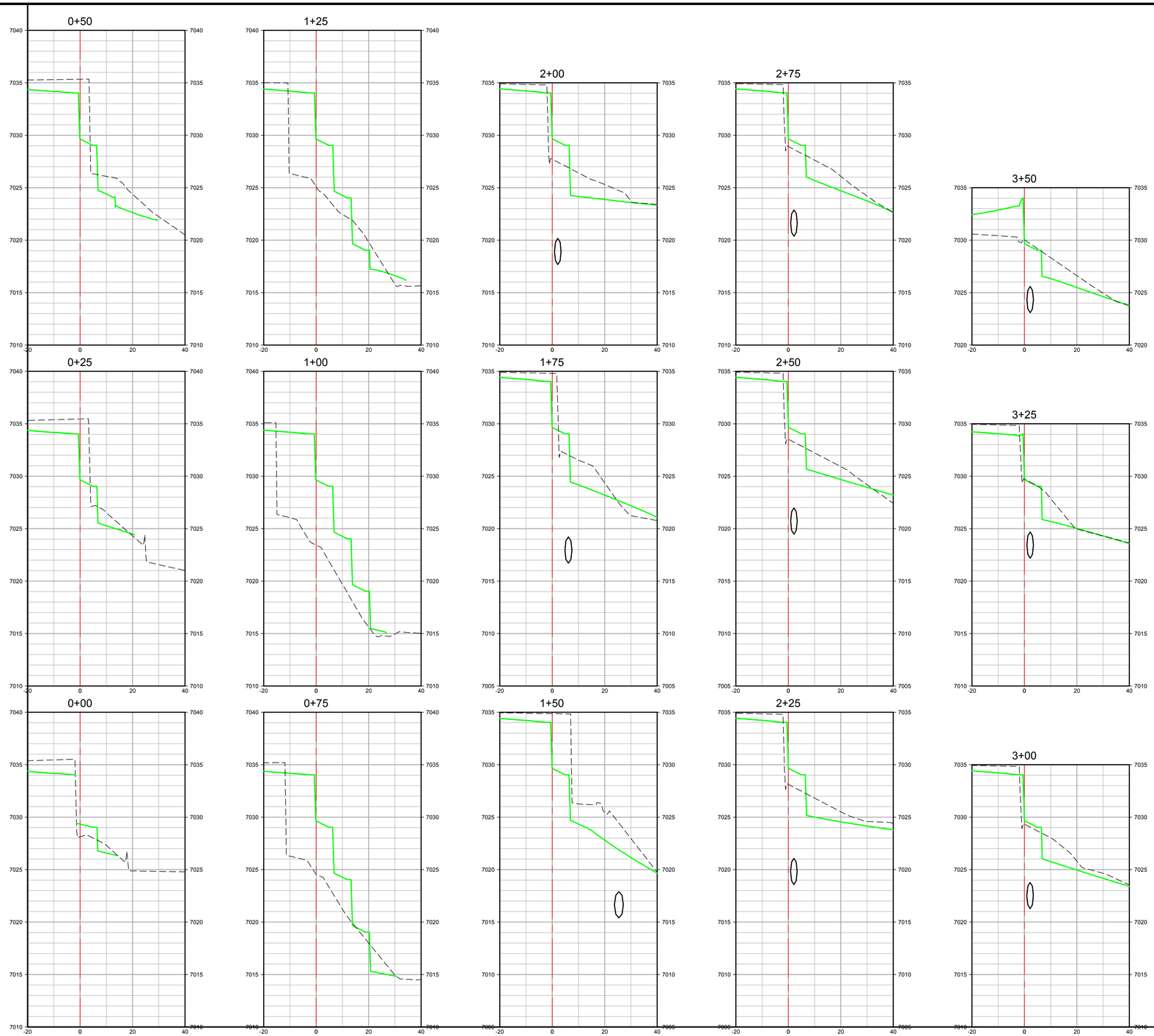


## LEGEND - SECTIONS

- EXISTING GROUND
- FINISH GRADE
- 24" Ø CMP

NOTE:

SECTIONS SHOWN START AT NE CORNER OF TANK AND WRAP AROUND TO THE WEST AND THEN SOUTH ALONG ALIGNMENT W1. SECTION LINES AND STATIONING SHOWN ON SHEET C-5.

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| | | | | |


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# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT RETAINING WALL SECTIONS

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Vert: 1" = 5 FT

Project No: 9223842

Sheet: C-7

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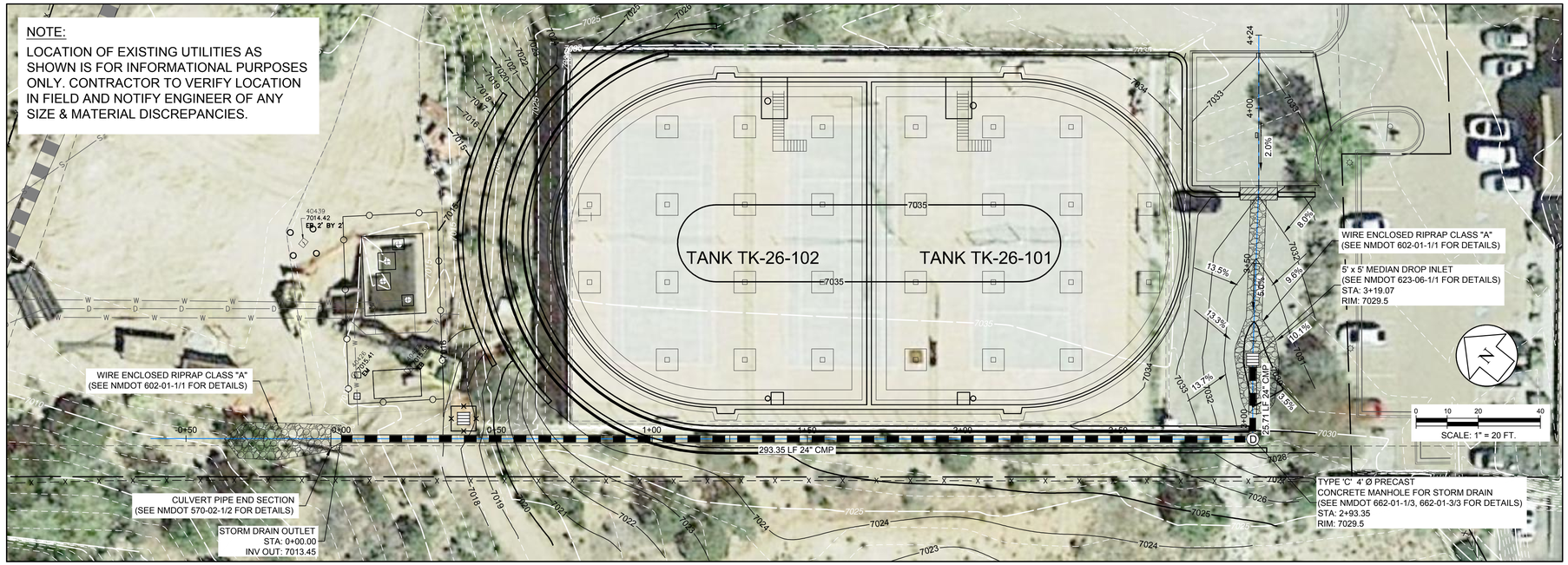


## LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
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- Ex Dirt Road
- Ex Gravel Road
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- Ex Contours - Major
- Ex Contours - Minor
- Profile Alignments
- Prop Road Alignment
- Proposed Fence
- Prop Contours - Major
- Prop Contours - Major
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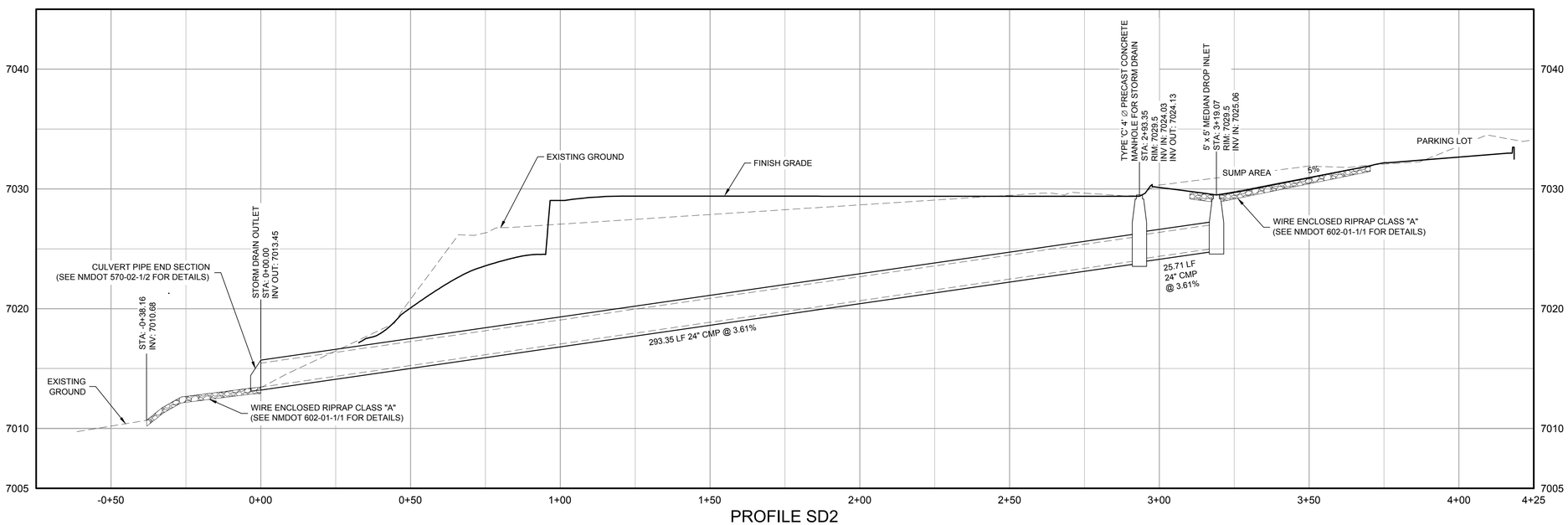
- Prop Storm Drain
- Riprap




## PROFILE SD2

SCALE: HORIZ. 1" = 5 FT
VERT. 1" = 1 FT

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CITY OF SANTA FE — SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# STORM DRAIN PLAN AND PROFILE

PETER G. FANT — NEW MEXICO — 12203 — LICENSED PROFESSIONAL ENGINEER

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| Designed | Drawn | Checked |
|---|---|---|
| ECY | BE | PGF |

Date: 2/19/2016
Scale: Horiz: 1" = 20 FT; Vert: 1" = 5 FT
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Sheet: C-8

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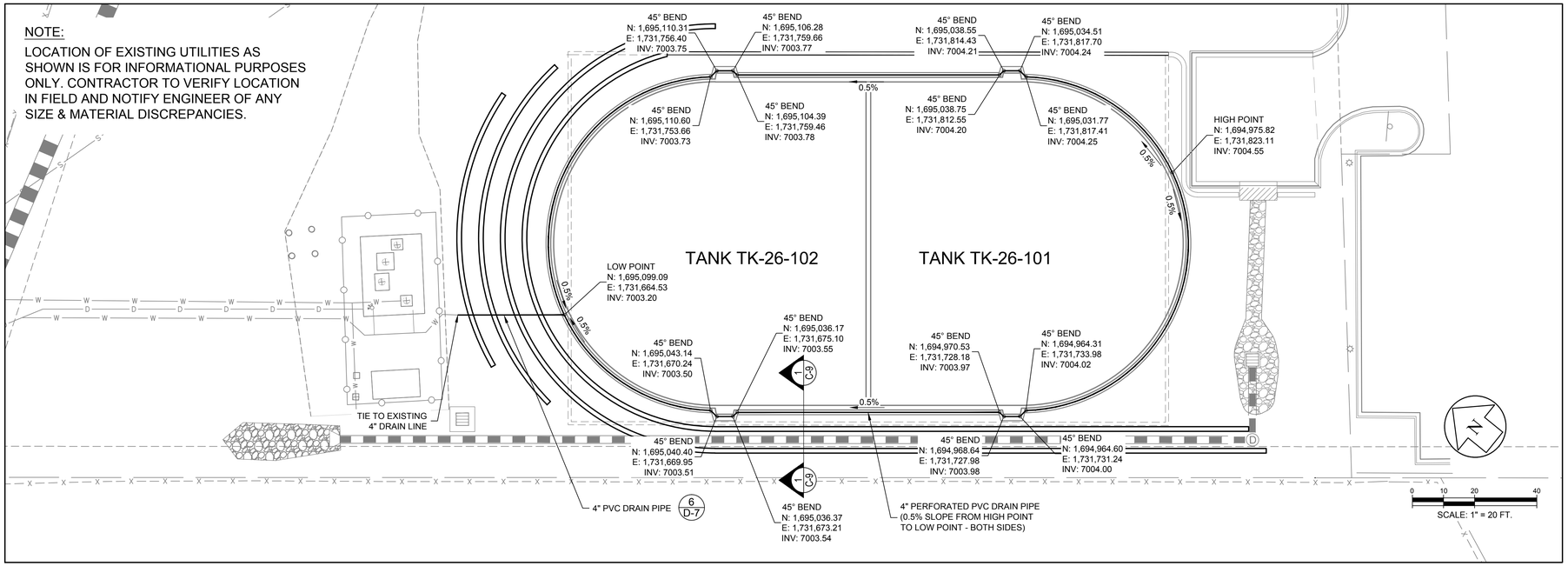


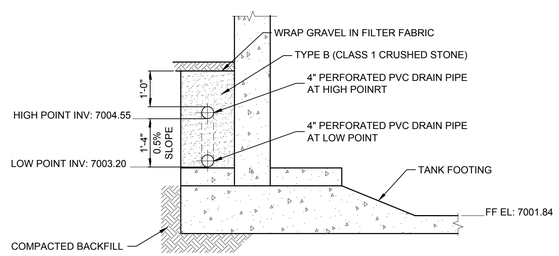


1 / C-9 TANK FOUNDATION DRAIN SECTION

NOT TO SCALE

540 LF OF 4" PERFORATED PVC DRAIN PIPE
35 LF OF 4" NON-PERFORATED PVC DRAIN PIPE

## LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
- Ex Drain Line
- Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
- Ex STL Fence
- Ex Barb Wire Fence
- Ex Easement
- Ex Contours - Major
- Ex Contours - Minor
- Profile Alignments
- Prop Road Alignment
- Proposed Fence
- Prop Contours - Major
- Prop Contours - Major
- Prop Daylight Line
- Prop Storm Drain
- Riprap

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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK FOOTING DRAIN PLAN

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Date: 2/19/2016

Scale: Horiz: AS SHOWN
Vert:

Project No: 9223842

Sheet: C-9

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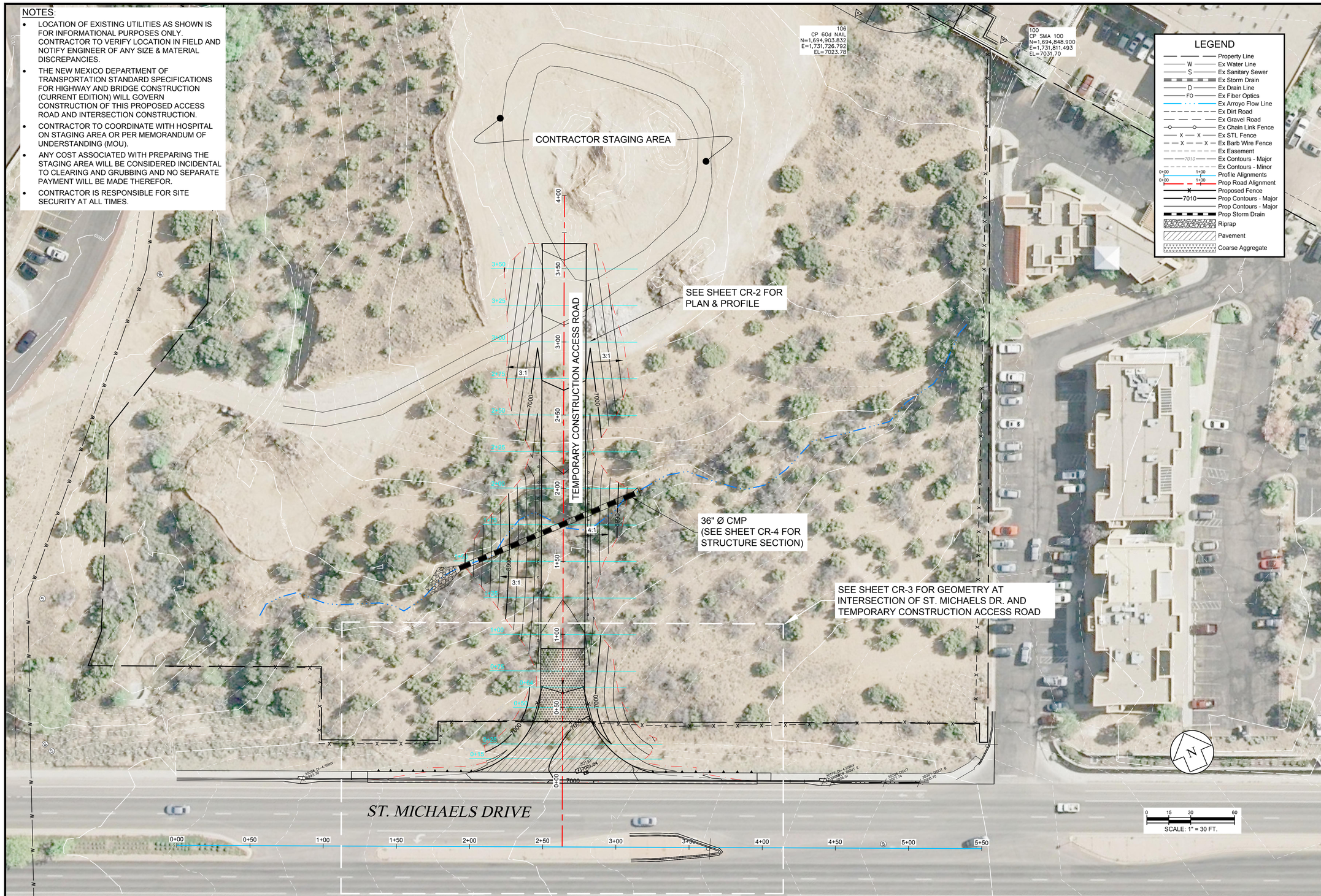


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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT TEMPORARY CONSTRUCTION ACCESS ROAD PLAN

PETER G. FANI NEW MEXICO 12203 LICENSED PROFESSIONAL ENGINEER

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Scale: Horiz: 1" = 30 FT
Vert:

Project No: 9223842

Sheet: CR-1

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## LEGEND

- Property Line
- W — Ex Water Line
- S — Ex Sanitary Sewer
- Ex Storm Drain
- D — Ex Drain Line
- FO — Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
- X — X — Ex STL Fence
- X — X — Ex Barb Wire Fence
- Ex Easement
- 7010 — Ex Contours - Major
- Ex Contours - Minor
- 0+00 1+00 — Profile Alignments
- 0+00 1+00 — Prop Road Alignment
- Proposed Fence
- 7010 — Prop Contours - Major
- Prop Contours - Major
- Prop Storm Drain
- Riprap
- Pavement
- Coarse Aggregate

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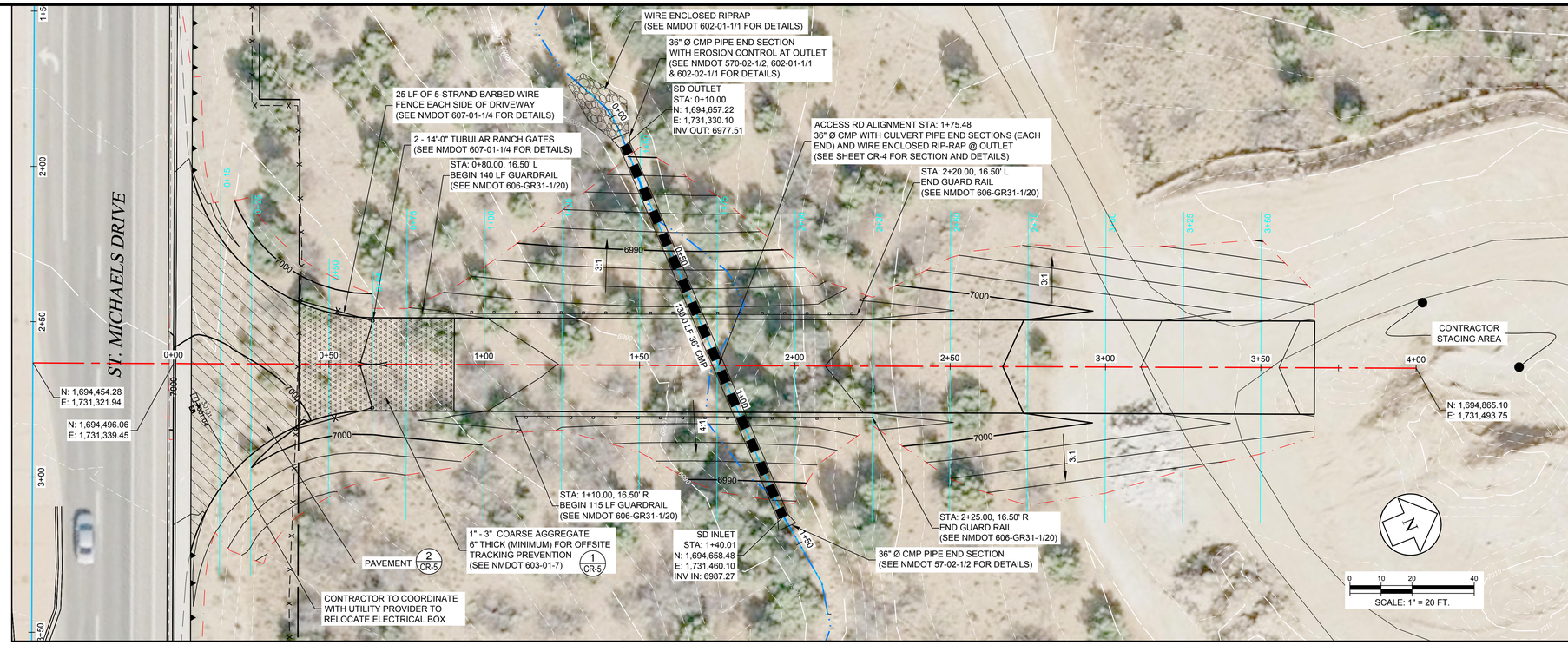
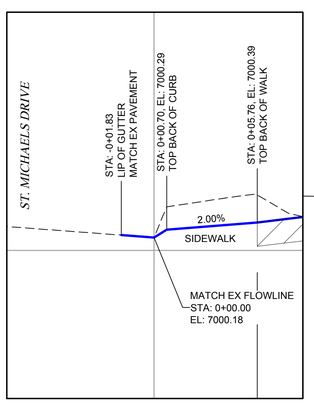


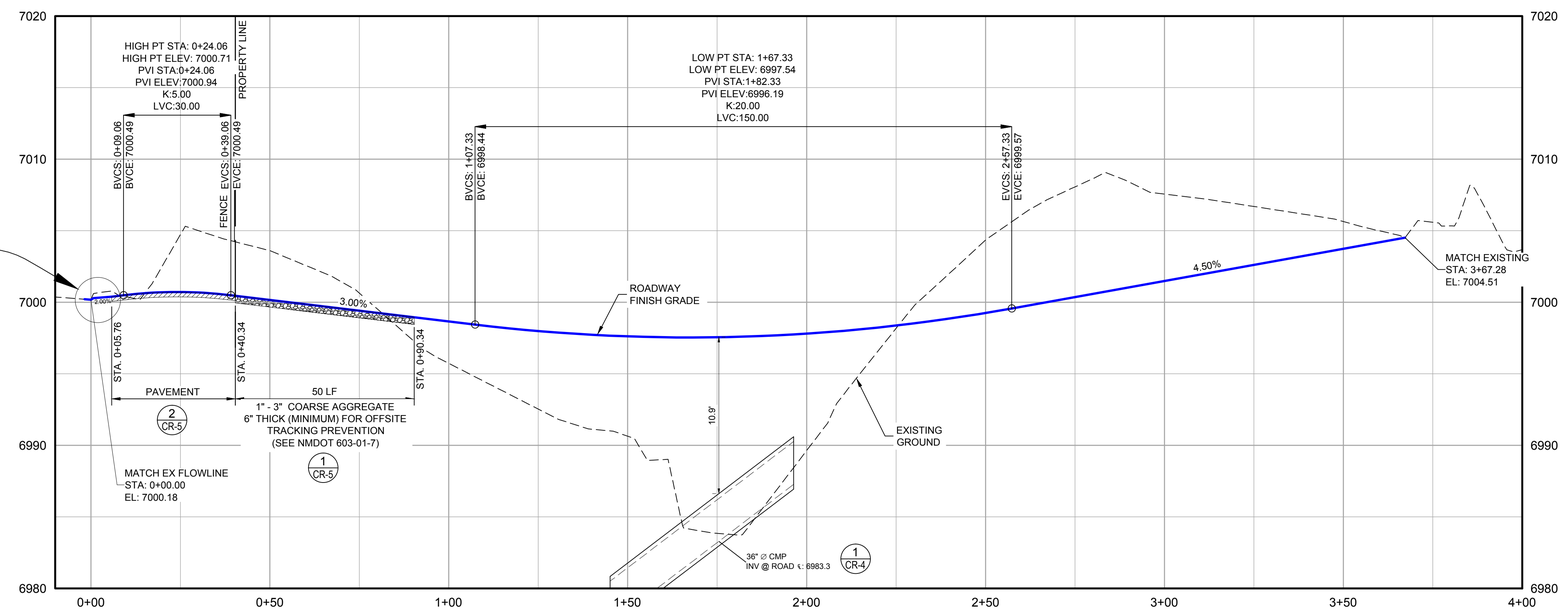

## CUT-FILL ANALYSIS:

| Cut | Fill | Net |
|---|---|---|
| 2148 Cu. Yd. | 2138 Cu. Yd. | 10 Cu. Yd.<Cut> |




## DETAIL

SCALE: HORIZ. 1" = 4 FT
VERT. 1" = 1 FT




## PROFILE ACCESS RD

SCALE: HORIZ. 1" = 20 FT
VERT. 1" = 5 FT

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CITY OF SANTA FE — SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT TEMPORARY CONSTRUCTION ACCESS ROAD PLAN & PROFILE

PETER G. FANT — NEW MEXICO — 12203 — LICENSED PROFESSIONAL ENGINEER

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| Designed | Drawn | Checked |
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| ECY | BE | PGF |

Date: 2/19/2016
Scale: Horiz: AS SHOWN Vert: AS SHOWN
Project No: 9223842
Sheet: CR-2

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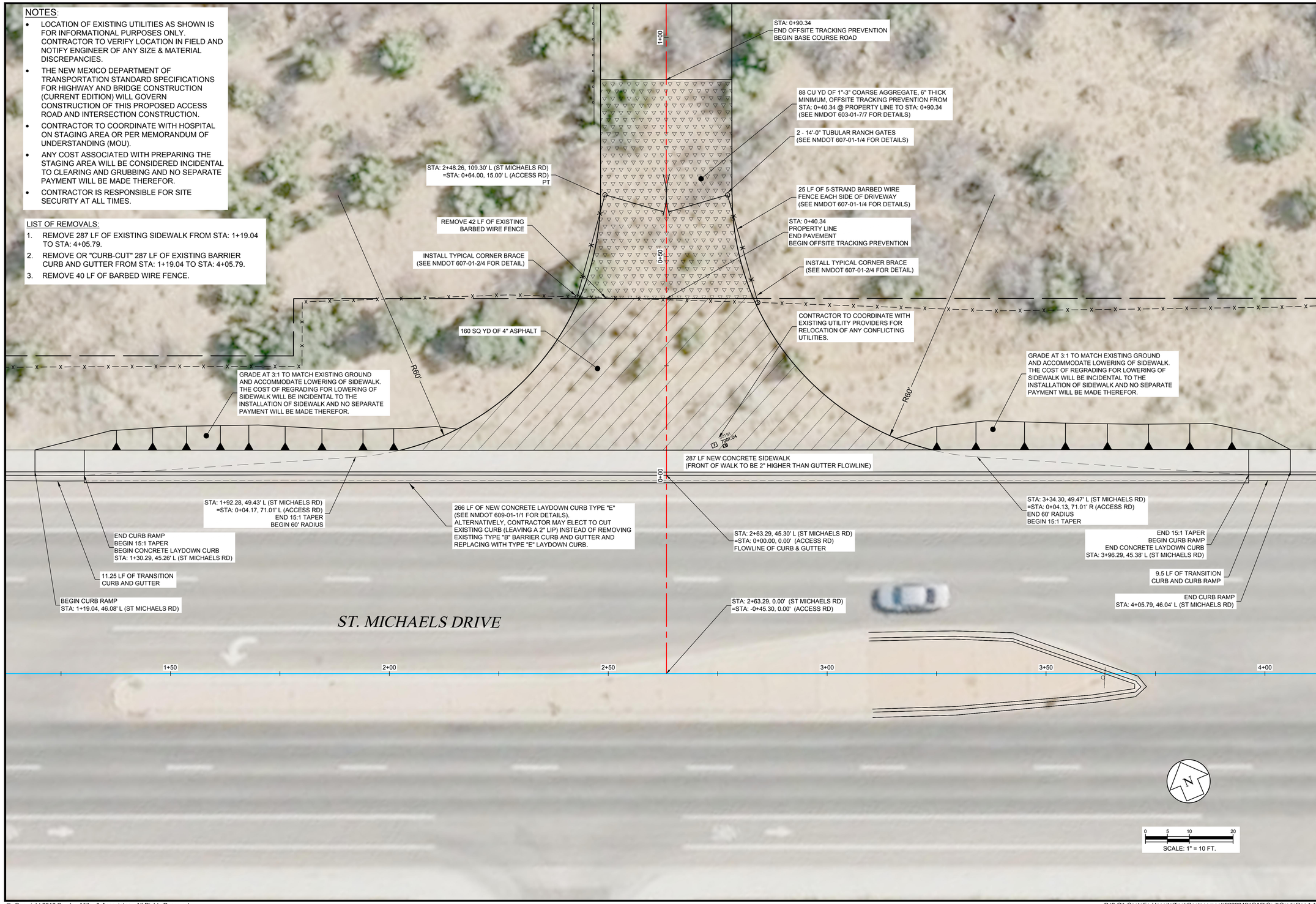
LIST OF REMOVALS:

1. REMOVE 287 LF OF EXISTING SIDEWALK FROM STA: 1+19.04 TO STA: 4+05.79.
2. REMOVE OR "CURB-CUT" 287 LF OF EXISTING BARRIER CURB AND GUTTER FROM STA: 1+19.04 TO STA: 4+05.79.
3. REMOVE 40 LF OF BARBED WIRE FENCE.

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# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TEMPORARY CONSTRUCTION ACCESS ROAD
# INTERSECTION GEOMETRY

SANTA FE, NM

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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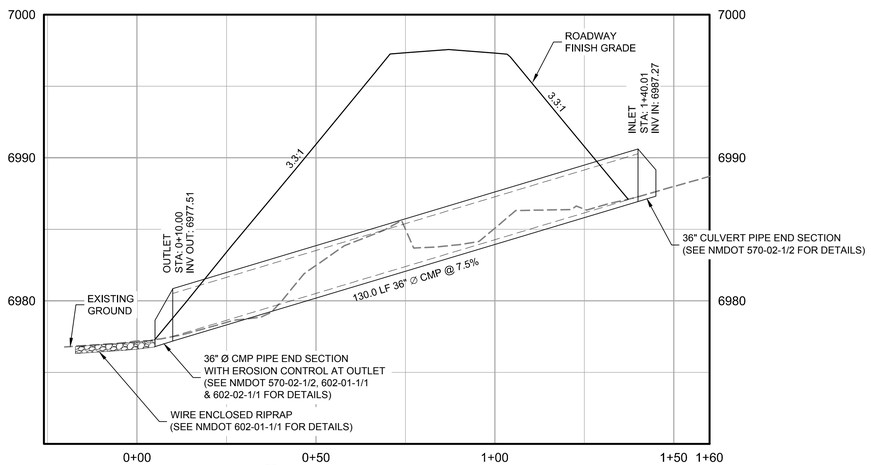



1 / CR-4 SECTION SD-SD

SCALE: HORIZ. 1" = 20 FT
VERT. 1" = 5 FT

# Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Friday, Oct 9 2015

## Santa Fe Temp Construction Access Road 36 in CMP

| | | |
|---|---|---|
| Invert Elev Dn (ft) | = | 6977.00 |
| Pipe Length (ft) | = | 130.00 |
| Slope (%) | = | 7.70 |
| Invert Elev Up (ft) | = | 6987.01 |
| Rise (in) | = | 36.0 |
| Shape | = | Circular |
| Span (in) | = | 36.0 |
| No. Barrels | = | 1 |
| n-Value | = | 0.023 |
| Culvert Type | = | Circular Corrugate Metal Pipe |
| Culvert Entrance | = | Projecting |
| Coeff. K,M,c,Y,k | = | 0.034, 1.5, 0.0553, 0.54, 0.9 |

**Embankment**

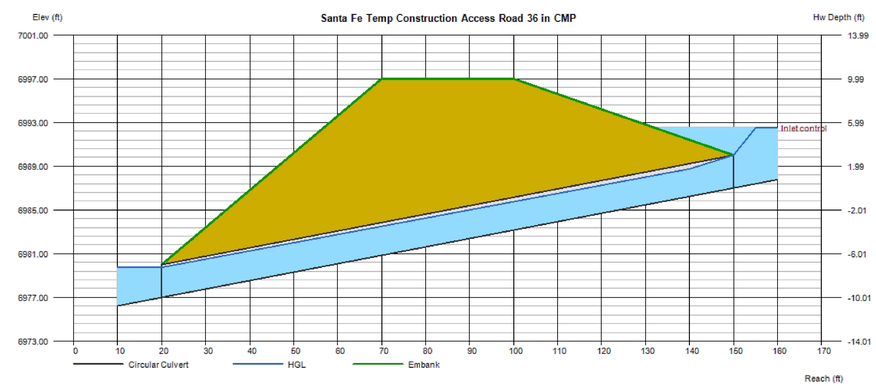
| | | |
|---|---|---|
| Top Elevation (ft) | = | 6997.00 |
| Top Width (ft) | = | 30.00 |
| Crest Width (ft) | = | 100.00 |

**Calculations**

| | | |
|---|---|---|
| Qmin (cfs) | = | 0.00 |
| Qmax (cfs) | = | 60.00 |
| Tailwater Elev (ft) | = | (dc+D)/2 |

**Highlighted**

| | | |
|---|---|---|
| Qtotal (cfs) | = | 60.00 |
| Qpipe (cfs) | = | 60.00 |
| Qovertop (cfs) | = | 0.00 |
| Veloc Dn (ft/s) | = | 8.84 |
| Veloc Up (ft/s) | = | 9.53 |
| HGL Dn (ft) | = | 6979.75 |
| HGL Up (ft) | = | 6989.51 |
| Hw Elev (ft) | = | 6992.50 |
| Hw/D (ft) | = | 1.83 |
| Flow Regime | = | Inlet Control |

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CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
TEMPORARY CONSTRUCTION ACCESS ROAD
STRUCTURE SECTION

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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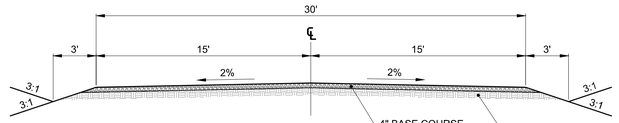
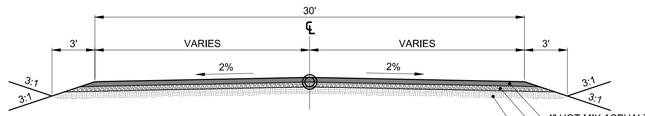
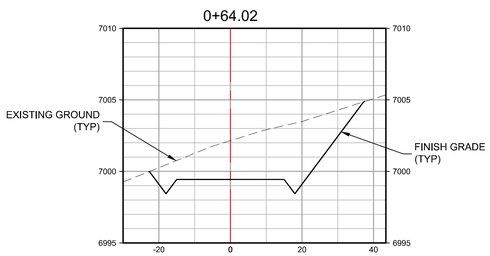
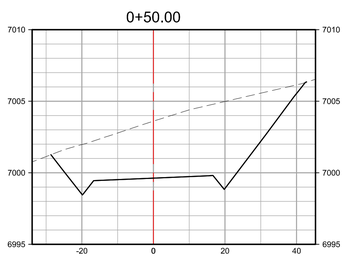


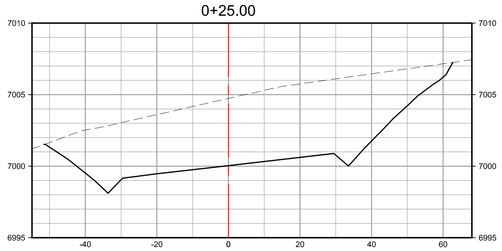

TYPICAL ROADWAY SECTION
STA: 0+40.34 @ PROPERTY LINE TO STA: 3+67.28
N.T.S.

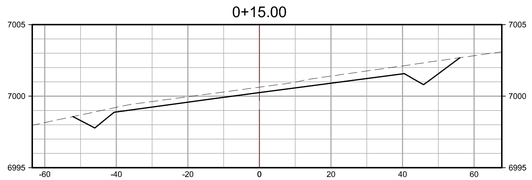


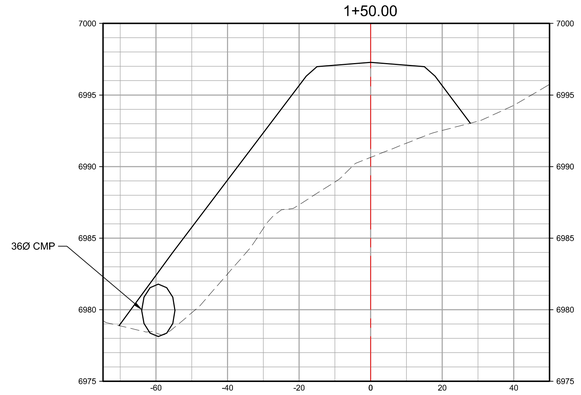

TYPICAL ROADWAY SECTION
STA: 0+5.76 @ BACK OF SIDEWALK TO STA: 0+40.34 @ PROPERTY LINE
N.T.S.

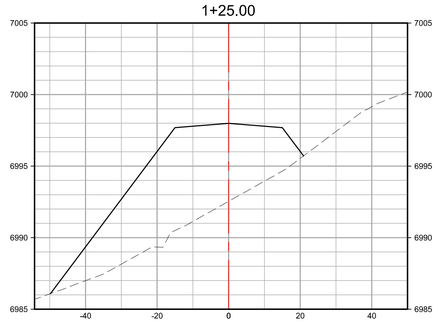


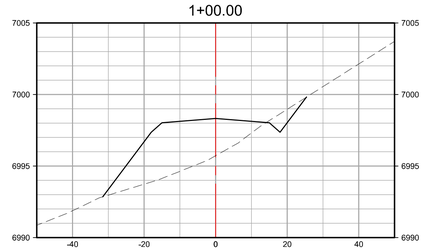



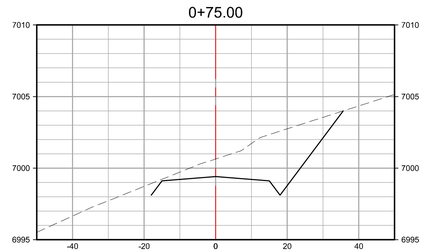



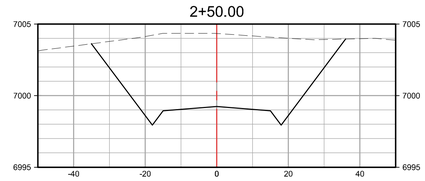



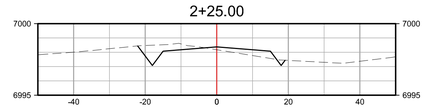



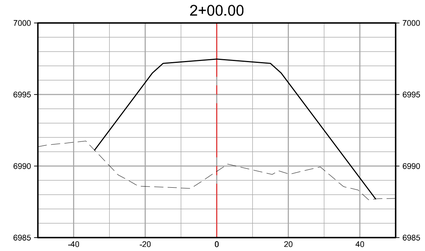



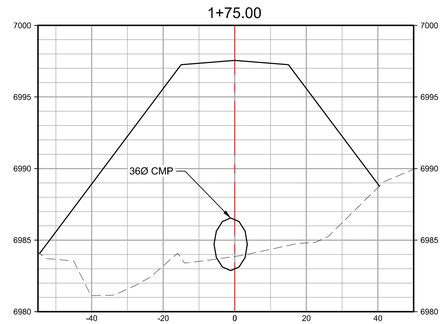



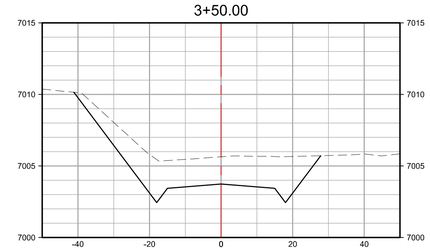



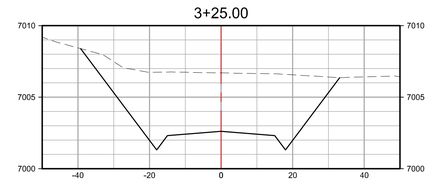



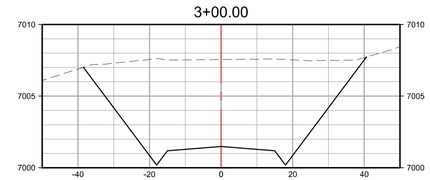



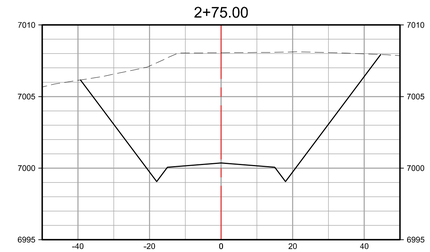

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TEMPORARY CONSTRUCTION ACCESS ROAD
SECTIONS

PETER G. FANT
NEW MEXICO
12203
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2/19/16

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| ECY | BE | PGF |

Date: 2/19/2016

Scale: Horiz: 1" = 20 FT
Vert: 1" = 5 FT

Project No: 9223842

Sheet: CR-5

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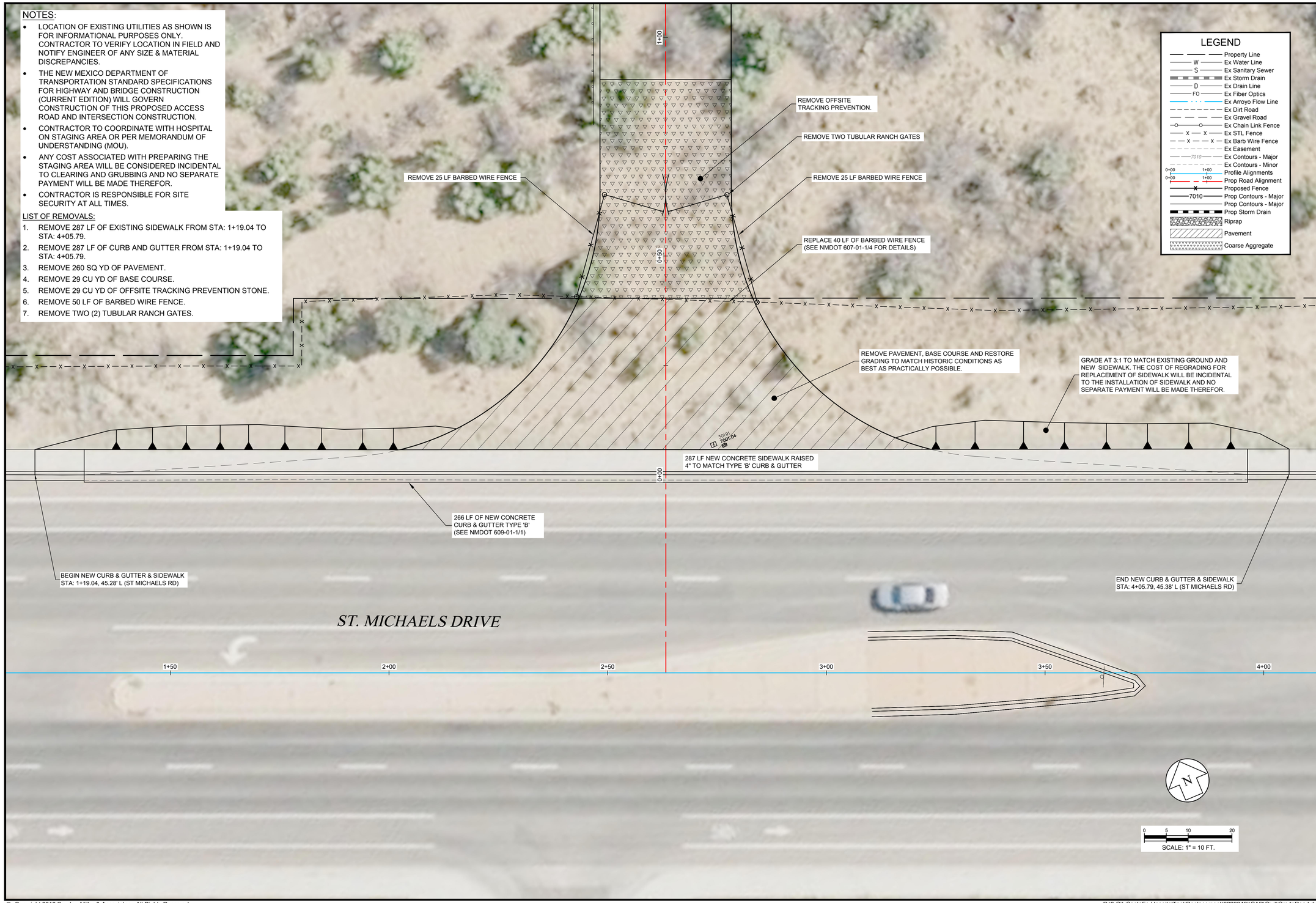
NOTES:

- LOCATION OF EXISTING UTILITIES AS SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY LOCATION IN FIELD AND NOTIFY ENGINEER OF ANY SIZE & MATERIAL DISCREPANCIES.
- THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION (CURRENT EDITION) WILL GOVERN CONSTRUCTION OF THIS PROPOSED ACCESS ROAD AND INTERSECTION CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH HOSPITAL ON STAGING AREA OR PER MEMORANDUM OF UNDERSTANDING (MOU).
- ANY COST ASSOCIATED WITH PREPARING THE STAGING AREA WILL BE CONSIDERED INCIDENTAL TO CLEARING AND GRUBBING AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
- CONTRACTOR IS RESPONSIBLE FOR SITE SECURITY AT ALL TIMES.

LIST OF REMOVALS:

1. REMOVE 287 LF OF EXISTING SIDEWALK FROM STA: 1+19.04 TO STA: 4+05.79.
2. REMOVE 287 LF OF CURB AND GUTTER FROM STA: 1+19.04 TO STA: 4+05.79.
3. REMOVE 260 SQ YD OF PAVEMENT.
4. REMOVE 29 CU YD OF BASE COURSE.
5. REMOVE 29 CU YD OF OFFSITE TRACKING PREVENTION STONE.
6. REMOVE 50 LF OF BARBED WIRE FENCE.
7. REMOVE TWO (2) TUBULAR RANCH GATES.

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CITY OF SANTA FE — SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TEMPORARY CONSTRUCTION ACCESS ROAD INTERSECTION REMOVAL AND RESTORATION

PETER G. FANT — NEW MEXICO — 12203 — LICENSED PROFESSIONAL ENGINEER

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| ECY | BE | PGF |

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Scale: Horiz: 1" = 10 FT
Vert:

Project No: 9223842

Sheet: CR-6

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# GENERAL STRUCTURAL NOTES:

## DESIGN CRITERIA

DESIGN CODES AND STANDARDS: AWWA D115, ACI 350, IBC
ROOF: LIVE LOAD = 30 PSF, SOIL LOAD = 187.5 PSF (18" MAX. DEPTH)
INTERNAL FLUID PRESSURE = 62.4 PCF
BACKFILL E.F.P. AGAINST WALL = 55 PCF FULL HEIGHT
SEISMIC: PER 2012 IBC, ACI 350.3 AND AWWA D115
Ss=0.45, S1=0.13, I=1.25, SITE CLASSIFICATION C
SOIL ALLOWABLE BEARING PRESSURE = 5000 PSF

## FOUNDATION, EXCAVATION AND BACKFILL

FOUNDATION DESIGN BASED ON GEOTECHNICAL REPORT BY GEO–TEST, INC DATED SEPTEMBER 18, 2015, JOB NO. 1–50411. CONTRACTOR SHALL REVIEW THE SOILS REPORT WHICH IS AVAILABLE IN THE ENGINEER'S OFFICE. A QUALIFIED SOILS ENGINEER SHALL INSPECT THE OPEN EXCAVATION TO VERIFY THE FOUNDATION BEARING MATERIAL. BACKFILL MATERIAL AND PLACEMENT AGAINST THE TANK WALL SHALL BE CONSISTENT WITH THE DESIGN CRITERIA. SEE SOILS REPORT FOR ADDITIONAL INFORMATION.

## CONCRETE

DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI CODES AND REPORTS 318, 301, AND 350. ALL CONCRETE SHALL DEVELOP 4500 PSI COMPRESSIVE STRENGTH WITHIN 28 DAYS, MAX. W/C RATIO OF 0.42, CONCRETE SHALL CONTAIN 20% CLASS F FLY ASH.
FLOOR AND ROOF CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION WITHOUT COLD JOINTS OR CONSTRUCTION JOINTS, UNLESS SPECIFICALLY SHOWN ON THESE DRAWINGS.
SEE DRAWINGS BY OTHERS FOR SIZES AND LOCATIONS OF HOLES, SLEEVES, REGLETS, BOLTS, NOTCHES, DRIPS, EMBEDDED ITEMS, ETC.
IN WALLS, ALL CONSTRUCTION JOINTS SHALL BE VERTICAL WITH WATERSTOPS. NO HORIZONTAL JOINTS ARE PERMITTED, EXCEPT AS SHOWN ON THE DRAWINGS.
ALL CONCRETE CORNERS EXPOSED TO VIEW SHALL HAVE 3/4" CHAMFER.

## REINFORCEMENT

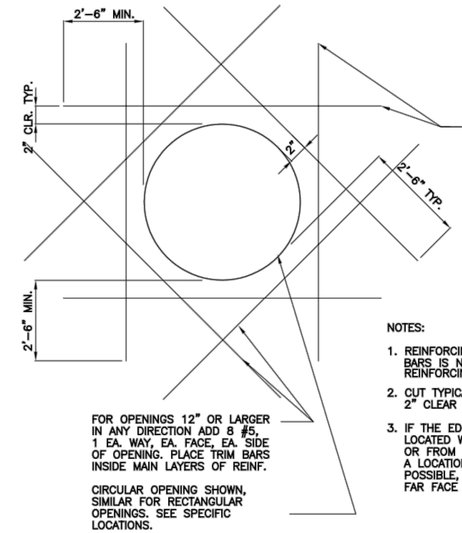
DETAILING, FABRICATION, AND PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 350 AND 315, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS. STEEL REINFORCEMENT SHALL BE NEW, DEFORMED BILLET STEEL, MEETING ASTM STANDARD A 615. #4 BARS AND LARGER SHALL BE GRADE 60 STEEL; #3 BARS AND DESIGNATED REINFORCEMENT SHALL BE GRADE 40; SHOP DRAWINGS SHALL BE MARKED ACCORDINGLY. GRADE 60 DOWELS SHALL NOT BE BENT IN THE FIELD AFTER PLACING. REINFORCEMENT IN ALL WALLS AND SLABS SHALL BE CONTINUOUS AROUND CORNERS OR CORNER BARS PROVIDED BOTH VERTICAL AND HORIZONTAL OR AS DETAILED ON THE DRAWINGS.
LAP ALL TENSION SPLICES ACCORDING TO ACI 350–06, CLASS B, AND ALL COMPRESSION SPLICES 30 BAR DIAMETERS, EXCEPT AS NOTED OR SHOWN ON THE DRAWINGS. SEE DRAWINGS FOR TRIM BARS ON ALL SIDES OF OPENINGS AND PIPES.
PROVIDE CONCRETE COVER FOR REINFORCEMENT AS FOLLOWS: 2" FOR P.T. CONCRETE DEPOSITED AGAINST THE GROUND; 1–1/2" FOR BARS ELSEWHERE, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
ALL CONCRETE REQUIRES REINFORCEMENT. WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, THE "ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES" (ACI 350–06), SHALL BE REFERRED TO FOR PROPER REINFORCEMENT.
PROVIDE CORROSION PROTECTED ACCESSORIES FOR ALL CONCRETE SURFACES. TACK WELDING OF REINFORCING BARS IS NOT PERMITTED, UNLESS OTHERWISE CALLED FOR OR REVIEWED BY THE ENGINEER.

## POST–TENSIONING:

ALL PRESTRESSING DESIGN, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO ACI 350, 301, AND AWWA D115. POST–TENSIONING TENDONS SHALL BE 0.5 INCH (OR 0.6 INCH WHERE NOTED) DIAMETER 7–WIRE, LOW–RELAXATION STRAND, ASTM A 416. JACKING STRESS SHALL BE 0.8 FPU (33 KIPS PER STRAND FOR THE 1/2"ø STRANDS & 46.8 KIPS PER STRAND FOR THE 0.6"ø STRANDS). BONDED TENDONS IN CORRUGATED PLASTIC DUCTS SHALL BE USED. SEE STRUCTURAL CALCULATIONS FOR DESIGN CRITERIA OF THE POST–TENSIONING.
CARE SHALL BE TAKEN THAT TENDONS ARE LOCATED AND HELD IN THEIR DESIGNATED POSITIONS. TOLERANCES FOR LOCATION OF PRESTRESSING STEEL IN THE FLOOR, WALL, OR ROOF THICKNESS SHALL NOT BE MORE THAN 1/8 INCH, EXCEPT AS NOTED OR REVIEWED BY THE STRUCTURAL ENGINEER. TOLERANCES IN CIRCUMFERENTIAL OR PLAN DIMENSIONS, PER NORMAL ACI STANDARDS. TENSIONING SHALL NOT START UNTIL TESTS INDICATE THE CONCRETE IN PLACE HAS REACHED THE SPECIFIED INITIAL COMPRESSIVE STRENGTH – 1500 PSI FOR HALF TENSIONING OF THE FLOOR AND ROOF CONCRETE AND 3000 PSI FOR FULL TENSIONING OF THE FLOOR AND ROOF CONCRETE, 3500 PSI FOR TENSIONING OF THE WALL TENDONS. TENSIONING SHALL BE DONE BY JACKING UNDER IMMEDIATE CONTROL OF A PERSON EXPERIENCED IN THIS TYPE OF WORK. RECORDS SHALL BE KEPT BY THE CONTRACTOR OF ELONGATION AND TENSION OF THE STRAND AND REVIEWED BY THE ENGINEER PRIOR TO REMOVING STRESSING TAILS. THE OBSERVED ELONGATION SHALL BE WITHIN 7% OF THAT PREDICTED. ALL TENDON ANCHORAGES SHALL BE RECESSED AS SHOWN ON THE DRAWINGS. STRESSING BLOCKOUTS SHALL HAVE A NEAT CEMENT BONDING AGENT AND SHALL BE FILLED WITH NONSHRINK GROUT AFTER PRESTRESSING.

**2012 INTERNATIONAL BUILDING CODE TABLE 1704.4**
**REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION**

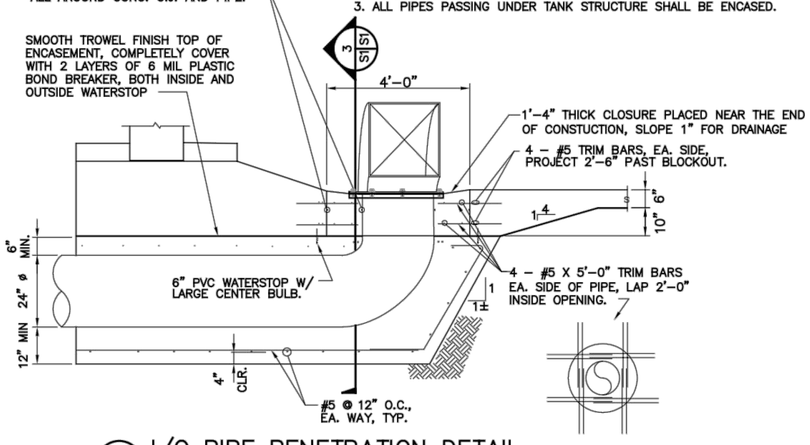
| VERIFICATION AND INSPECTION | CONTINUOUS | PERIODIC | REFERENCED STANDARD | IBC REFERENCE |
|---|---|---|---|---|
| 1. INSPECTION OF REINFORCING STEEL INCLUDING PRESTRESSING TENDONS AND PLACEMENT. | – | X | ACI 350: 3.5, 7.1–7.7 | 1913.4 |
| 2. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED. | X | – | | 1911.5 |
| 3. VERIFYING USE OF REQUIRED MIX DESIGN | – | X | ACI 350: CH. 4, 5.2–5.4 | 1904.2.2 1913.2,3 |
| 4. FRESH CONCRETE SAMPLING AND TESTING: SLUMP, AIR, TEMPERATURE AND FABRICATE STRENGTH TESTING SPECIMENS. | X | – | ASTM C 172, C31 ACI 350: 5.6, 5.8 | 1913.10 |
| 5. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. | X | – | ACI 350: 5.9, 5.10 | 1913.6,7,8 |
| 6. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. | – | X | ACI 350: 5.11, 5.13 | 1913.9 |
| 7. INSPECTION OF PRESTRESSED CONCRETE | | | | |
| A. APPLICATION OF PRESTRESSING FORCES | X | – | ACI 350: 18.20, 18.18.4 | |
| B. GROUTING OF BONDED PRESTRESSING TENDONS | X | – | | |
| 8. VERIFICATION OF IN–SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM SLABS. | – | X | ACI 350: 6.2 | |
| 9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER. | – | X | ACI 350: 6.1.1 | |



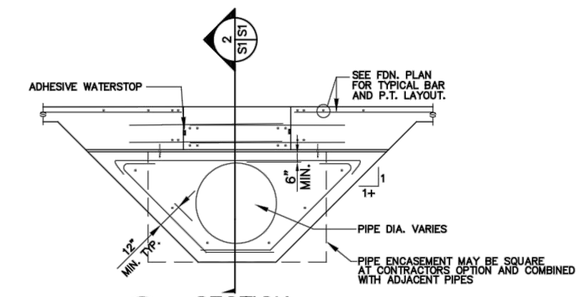

NOTES:
1. REINFORCING IN ADDITION TO THE TRIM BARS IS NOT REQUIRED WHEN TYPICAL REINFORCING IS NOT CUT.
2. CUT TYPICAL REINFORCING TO PROVIDE 2" CLEAR COVER AT EDGE OF OPENING.
3. IF THE EDGES OF AN OPENING OR PIPE ARE LOCATED WITHIN 2'–6" OF THE EDGE OF A SLAB OR FROM THE TOP OR BOTTOM OF A WALL OR A LOCATION WHERE A 2'–6" PROJECTION IS NOT POSSIBLE, PROVIDE A STANDARD 90° HOOK AT FAR FACE OF THE CONCRETE.

1 S1 S1 TYP. PENETRATION OR OPENING
SCALE: NO SCALE

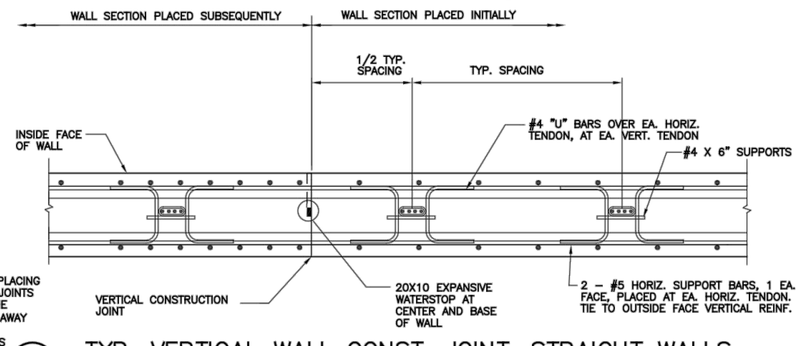
NOTES:
1. SEE CIVIL DRAWINGS FOR PIPE DETAILS @ EA. PENETRATION
2. DEFLECT SLAB TENDONS AROUND PIPE BLOCKOUT
3. ALL PIPES PASSING UNDER TANK STRUCTURE SHALL BE ENCASED.




2 S1 S1 I/O PIPE PENETRATION DETAIL
SCALE: 1/2" = 1'–0"

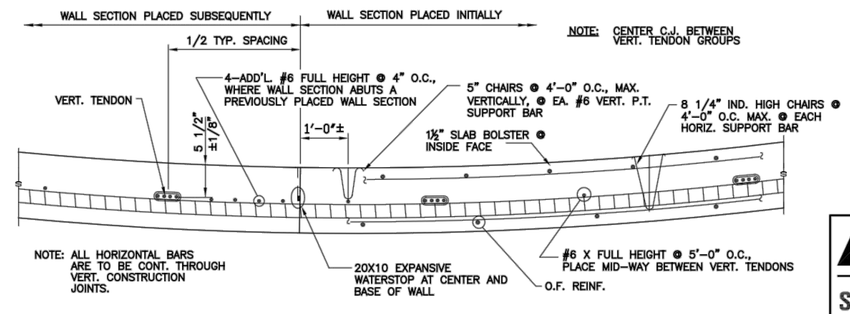



3 S1 S1 SECTION
SCALE: NO SCALE




NOTES:
1. MINIMIZE THE NUMBER OF CONST. JOINTS BY PLACING LONG WALL SEGMENTS, COORDINATE NUMBER OF JOINTS WITH ENGINEER. JOINTS SHALL BE LOCATED IN THE MIDDLE OF A VERTICAL TENDON SPACE, 10' MIN. AWAY FROM CORNERS AND PILASTERS.
2. ALL HORIZONTAL BARS ARE TO BE CONTINUOUS THROUGH VERTICAL CONSTRUCTION JOINTS.

4 S1 S1 TYP. VERTICAL WALL CONST. JOINT, STRAIGHT WALLS
SCALE: 1"=1'–0"




5 S1 S1 TYPICAL CURVED WALL JOINT & SUPPORT DETAIL
SCALE: 1"=1'–0"

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HOSPITAL TANK REPLACEMENT PROJECT
GENERAL NOTES AND TYPICAL TANK DETAILS
SANTA FE, NM

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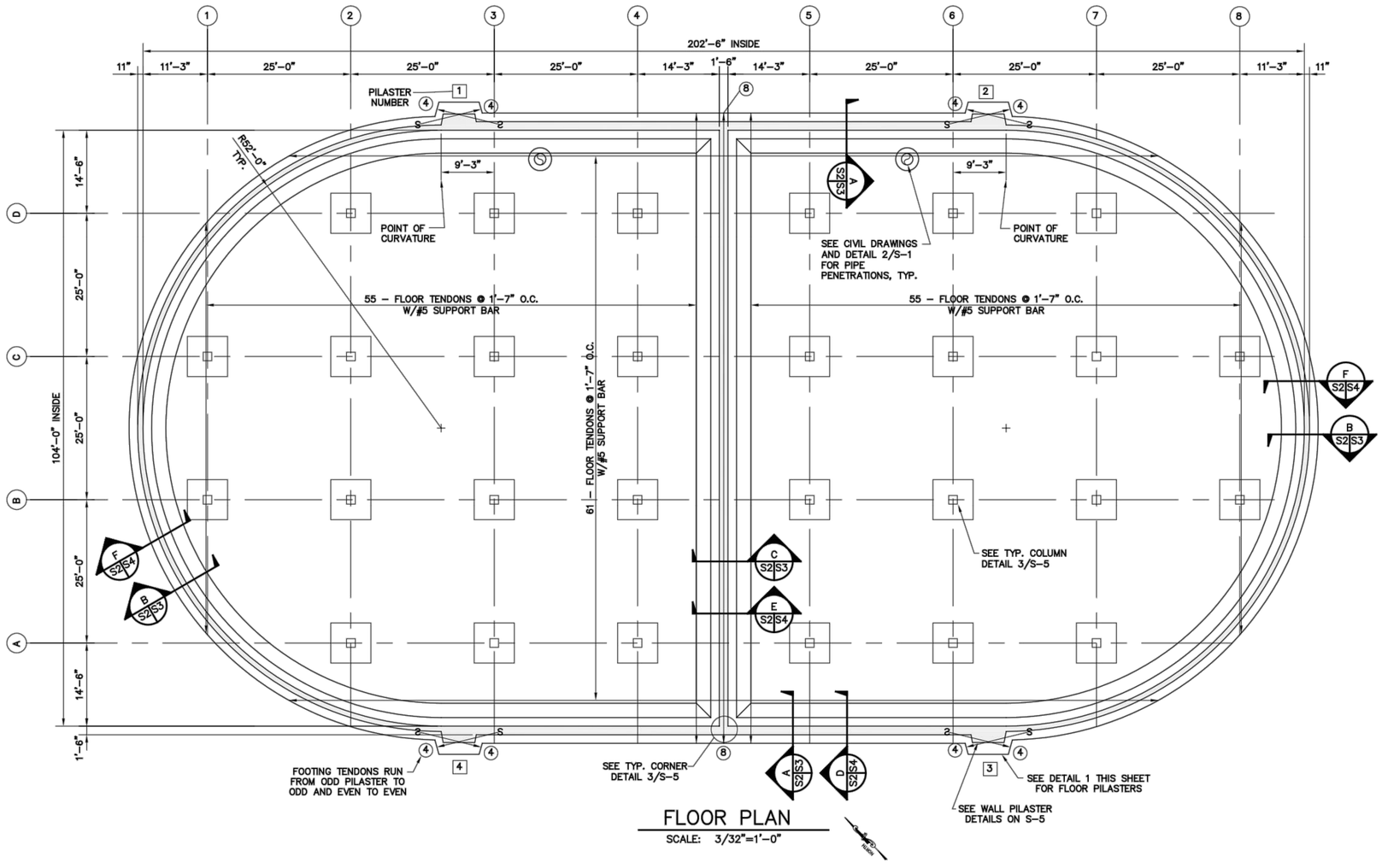
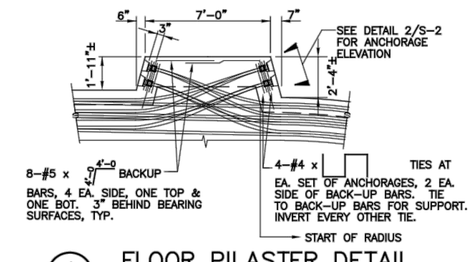



## FLOOR PLAN

SCALE: 3/32"=1'-0"

## FOUNDATION PLAN NOTES

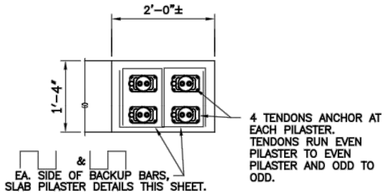
1. FLOOR TENDONS SHALL BE A BONDED SYSTEM WITH TWO-0.5"ø STRANDS PER DUCT. USE CORRUGATED FLAT, 1"X2" NOMINAL, PLASTIC DUCTS.
2. TIE ONE CONT. #5 SUPPORT BAR WITH EACH FLOOR TENDON DUCT.
3. USE NEAREST STANDARD 90°, 60°, & 45° POCKET FORMERS OR VARIABLE ANGLE BLOCKOUTS TO KEEP TENDON ALIGNMENT AS STRAIGHT AS POSSIBLE AT STRESSING ENDS (TYP).
4. DEFLECT TENDONS AT ENDS, IF REQUIRED, TO AVOID OVERLAPPING ANCHORAGES.
5. COMBINE ORTHOGONAL P.T. & REINF. BARS IN GROUPS @ INDICATED SPACING.
6. USE 3"X3"X2" HIGH, 4000 PSI CONC. BLOCKS (DOBIES), TO SUPPORT THE FLOOR SLAB REINFORCEMENT. THE LOWER LAYER OF POST-TENSIONING AND BARS SHALL BE DIRECTLY SUPPORTED AT EVERY CROSSING WITH THE PERPENDICULAR BARS AND STRANDS.
7. CIRCUMFERENTIAL AND ORTHOGONAL TENDONS GREATER THAN 100'-0" IN LENGTH SHALL BE TWO-END STRESSED.
8. SEE CIVIL DRAWINGS FOR PIPE LOCATIONS & DETAILS, & FLOOR SLAB ELEV.
9. BOTH FIELD CURED CYLINDERS AND MATURITY METERS ARE REQUIRED FOR FLOOR CONCRETE TO DETERMINE IN-SITU STRENGTH PRIOR TO POST-TENSIONING.




## FLOOR PILASTER DETAIL

1 S2|S2

SCALE: 1/4"=1'-0"




## ELEV. OF SLAB ANCHORAGES

2 S2|S2

SCALE: 3/4"=1'-0"

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CITY OF SANTA FE — SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# FLOOR PLAN AND SECTIONS

ANTHONY J GALTERIO — NEW MEXICO — 23375 — PROFESSIONAL ENGINEER


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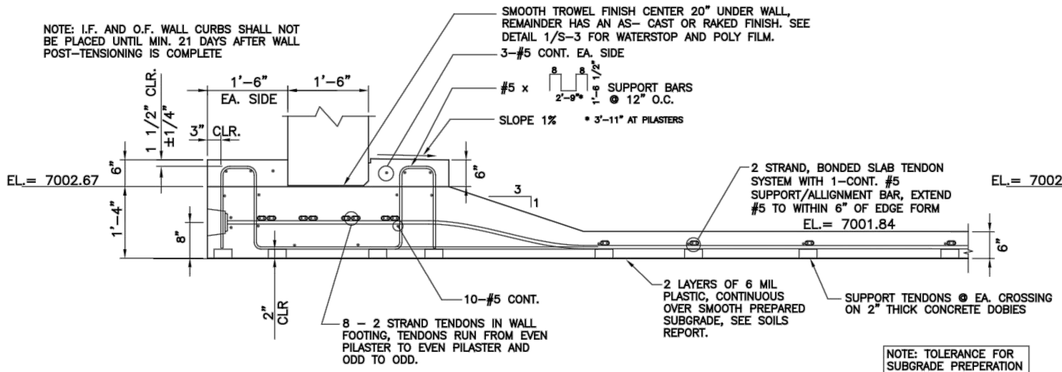
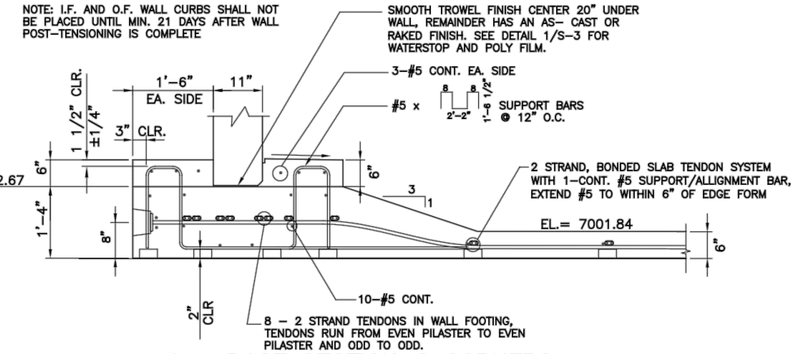



NOTE: TOLERANCE FOR SUBGRADE PREPERATION IS +0", -1"

A S2 S3

## BASE SECTION @ STRAIGHT WALL SEGMENTS

SCALE: 3/4"=1'-0"




B S2 S3

## BASE SECTION @ CORNERS

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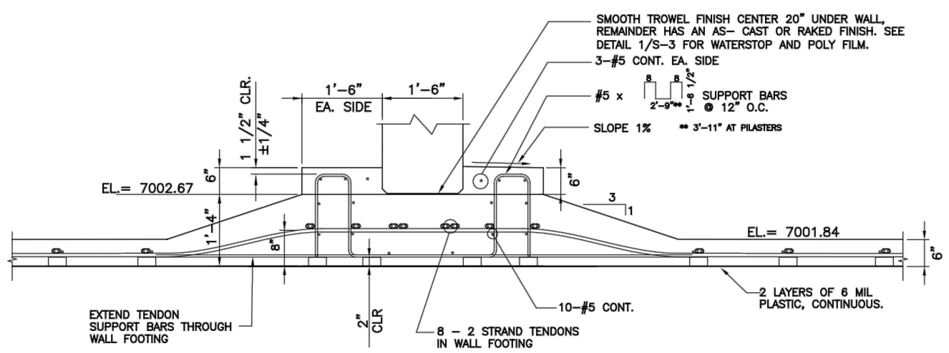


C S2 S3

## BASE SECTION @ INTERIOR WALL

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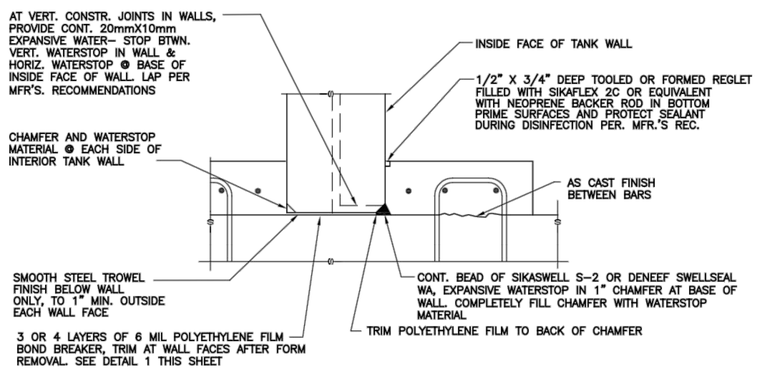
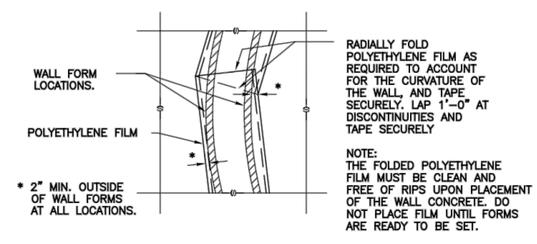


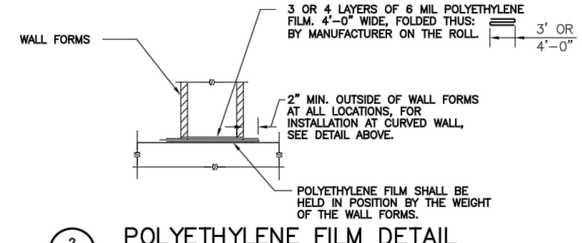

1 S3,S4 S3

## WATERSTOP DETAIL

SCALE: 1 1/2"=1'-0"




## PLAN OF POLYETHYLENE FILM @ CURVED WALLS




2 S3 S3

## POLYETHYLENE FILM DETAIL

SCALE: 3/4"=1'-0"

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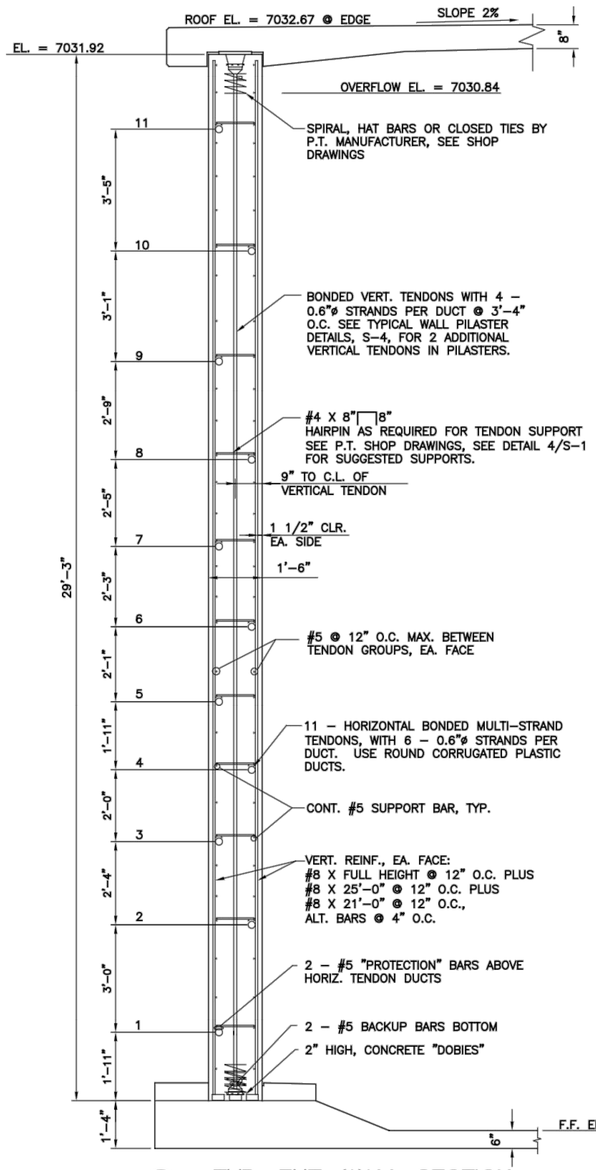
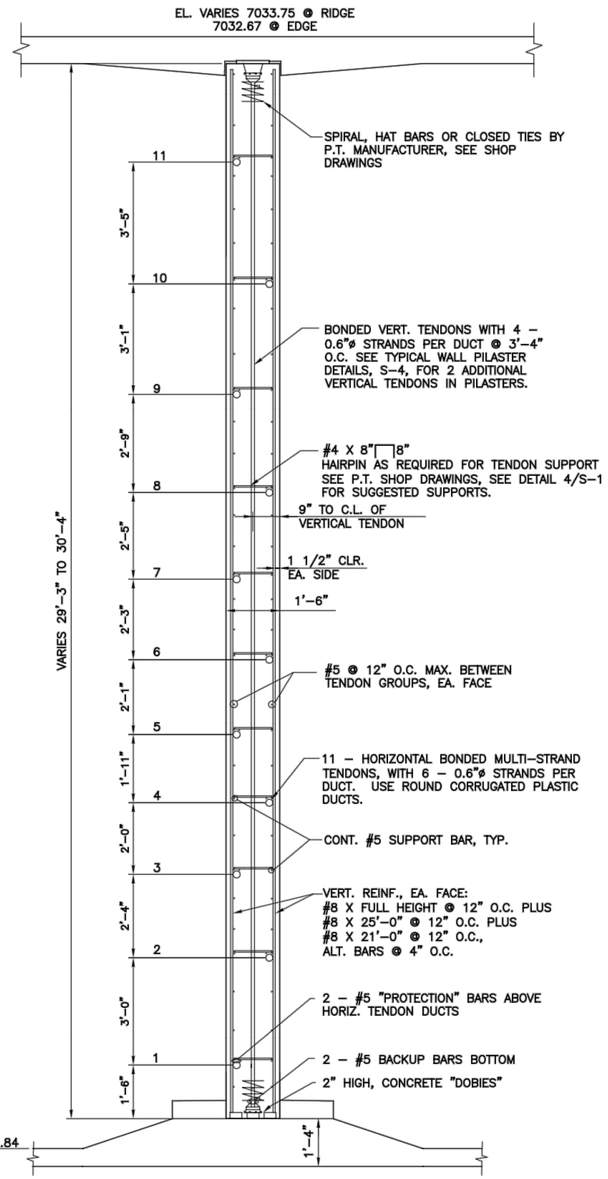



D S2 S4 TYP. EXT. WALL SECTION
SCALE: 1/2"=1'–0"




E S2 S4 INT. WALL SECTION
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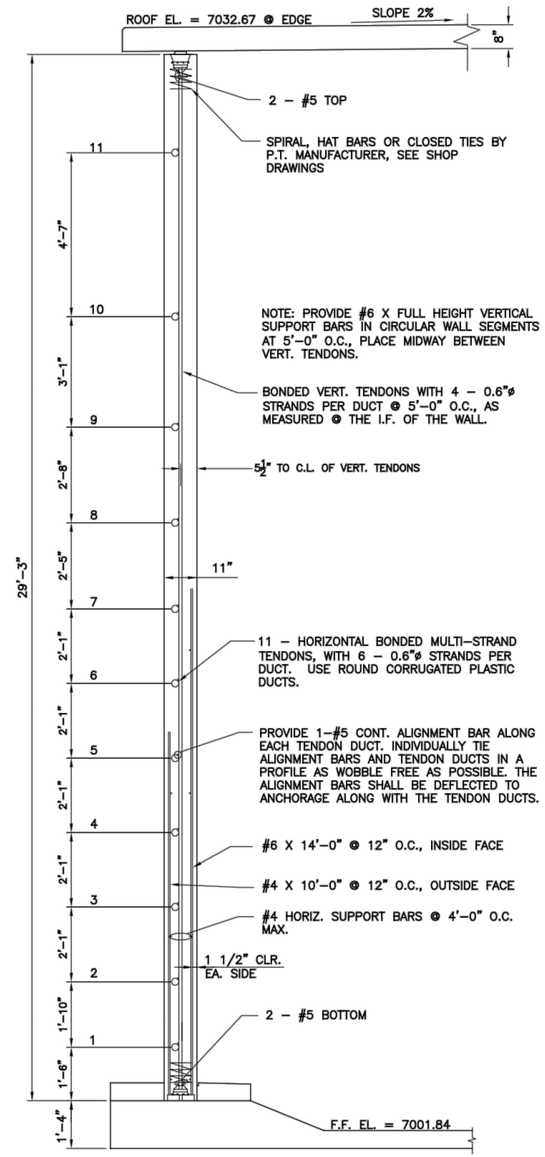


F S2 S4 TYP. CURVED WALL SECTION
SCALE: 1/2"=1'–0"

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CITY OF SANTA FE — SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TYP. WALL SECTIONS AND DETAILS

ANTHONY J GALTERIO — NEW MEXICO — 23375 — PROFESSIONAL ENGINEER


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Project No: 9223842
Sheet: S-4

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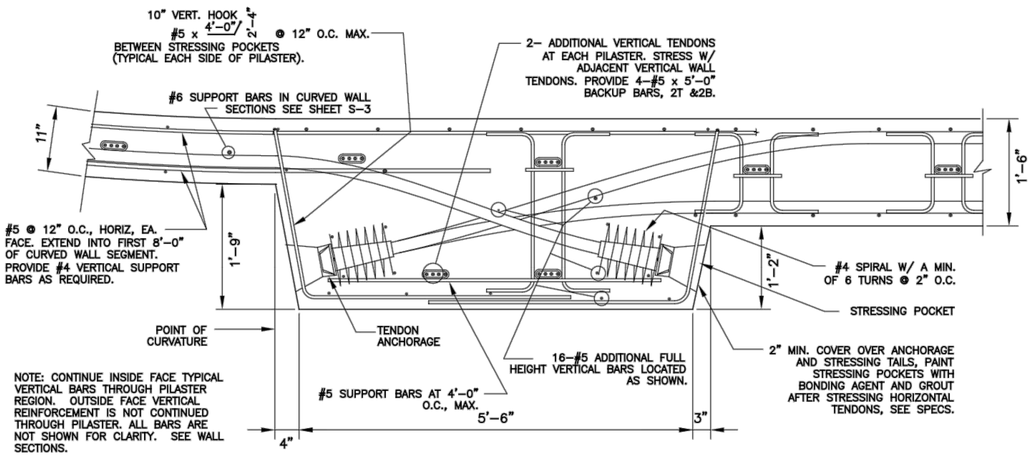
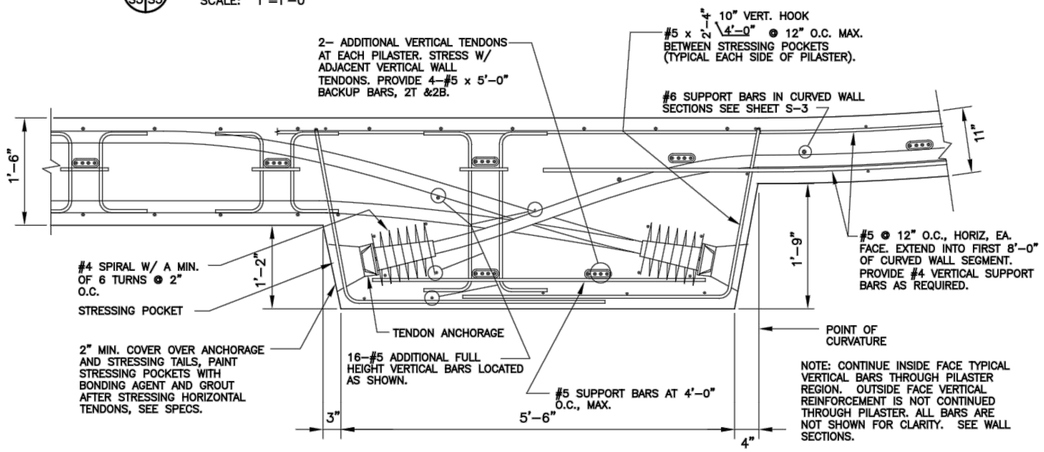



1 S5 S5 TYPICAL EVEN NUMBERED WALL PILASTER DETAIL

SCALE: 1"=1'–0"




2 S5 S5 TYPICAL ODD NUMBERED WALL PILASTER DETAIL

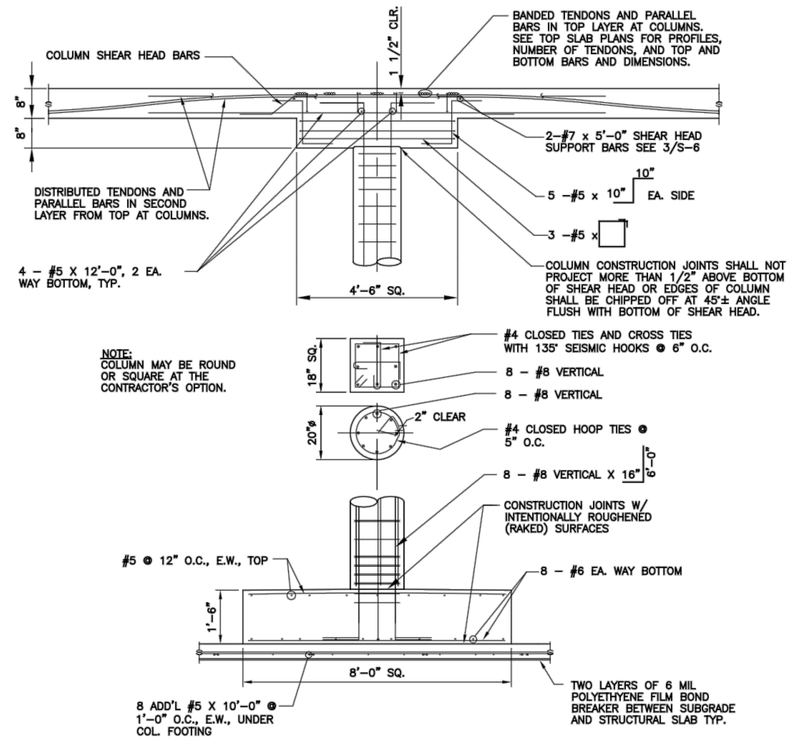
SCALE: 1"=1'–0"

## HORIZONTAL WALL TENDON STRESSING SEQUENCE

ALL TENDONS SHALL BE STRESSED TO 216 KSI FROM EACH END IN THE FOLLOWING SEQUENCE, AFTER WALL VERTICALS:

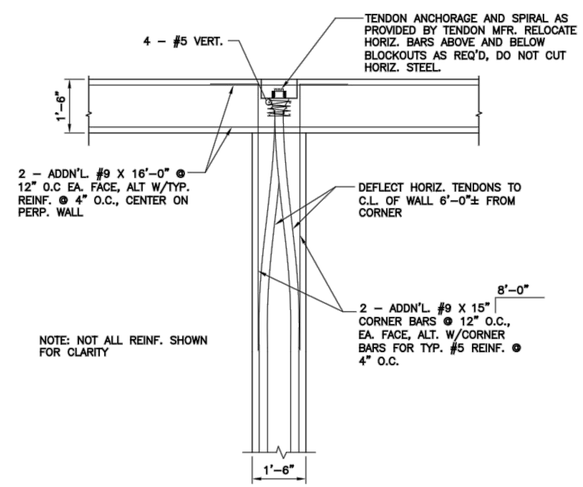
| PILASTER | TENDON STRESSING SEQUENCE |
|---|---|
| 1<br>3<br>DIV. WALL | 1L 1R 4R 4L 8L 8L 11R 11R<br>1L 1R 4R 4L 8L 8L 11R 11R<br>1 4 8 11 |
| 4<br>2<br>DIV. WALL | ALL LEFT, ALL RIGHT<br>ALL LEFT, ALL RIGHT<br>ALL TENDONS, END 1 |
| 1<br>3<br>DIV. WALL | ALL LEFT, ALL RIGHT<br>ALL LEFT, ALL RIGHT<br>ALL TENDONS, END 2 |

**LEGEND:** 5 L — TENDON LEVEL; RIGHT (R) OR LEFT (L) SIDE OF PILASTER




3 S2,S6 S5 TYPICAL COLUMN DETAIL

SCALE: 1/2"=1'–0"




4 S2 S5 TYP. INT. CORNER DETAIL

SCALE: 1/2"=1'–0"

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WALL PILASTER SECTIONS AND DETAILS

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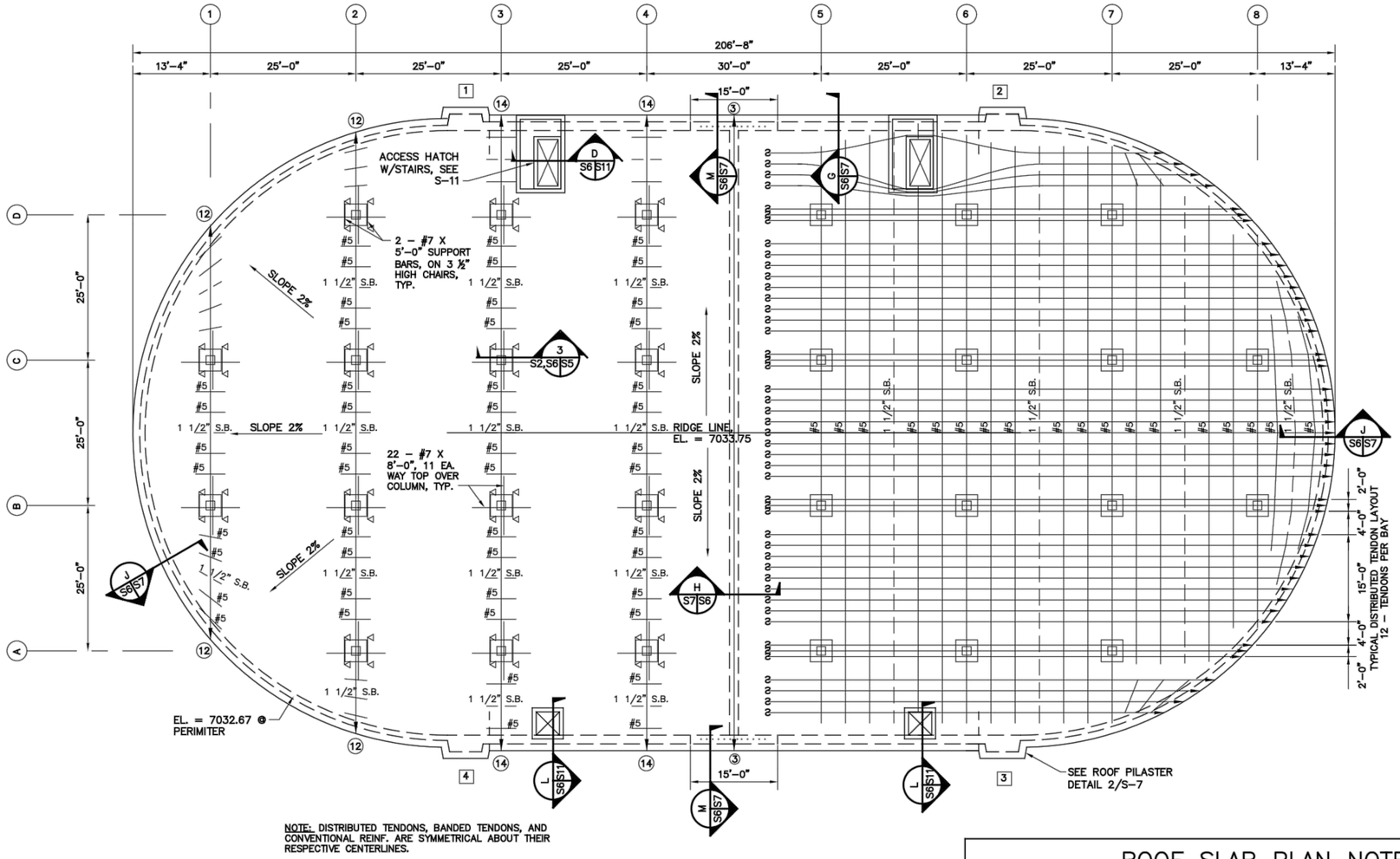


NOTE: DISTRIBUTED TENDONS, BANDED TENDONS, AND CONVENTIONAL REINF. ARE SYMMETRICAL ABOUT THEIR RESPECTIVE CENTERLINES.

## ROOF PLAN

SCALE: 3/32"=1'-0"

## ROOF SLAB PLAN NOTES

1. ——— DENOTES REINFORCING BARS AS SHOWN. TOP & BOTTOM STEEL LABELED "TYP." ARE TYPICAL ALONG GRID LINES PARALLEL TO REBAR UNLESS NOTED OTHERWISE.
2. ←——→ DENOTES BONDED POST-TENSIONING TENDONS WITH 2-0.5"ø STRANDS IN FLAT CORRUGATED PLASTIC 1"X2" DUCTS.
3. △ DENOTES CHAIR HEIGHT IN INCHES TO BE USED UNDER #5 SUPPORT BARS. PROFILE DIMENSIONS LABELED "TYP" ARE TYPICAL AT SIMILAR POSITIONS UNLESS NOTED OTHERWISE.
4. REBAR PLACEMENT SHALL NOT INTERFERE WITH THE REQUIRED TENDON PROFILES. RELOCATE "TOP" OR "BOTTOM" BARS AS LITTLE AS POSSIBLE TO AVOID INTERFERENCE.
5. USE 90', 60' AND 45' POCKET FORMERS (WHICHEVER IS NEAREST) TO KEEP TENDON ALIGNMENT AS STRAIGHT AS POSSIBLE AT STRESSING ENDS (TYPICAL). ALTERNATELY, FABRICATE VARIABLE ANGLE POCKETS.
6. TOP REINFORCING LAYERS AT COLUMNS SUPPORTED PER SECTION E, S-5. PROVIDE SUPPORT BARS FOR POST-TENSIONING, DO NOT USE "DIRECT CHAIRING" METHOD FOR P.T. SUPPORT. MAXIMUM SPACING OF SUPPORTS SHALL BE 4'-0". ALL SLAB BOLSTERS & CHAIRS SHALL BE STAPLED TO THE SOFFIT FORMS W/GALV. OR STAINLESS STEEL STAPLES. CHAIR EVERY CROSSING OF P.T. AND SUPPORT BARS AND TIE SECURELY. SUPPORT HEIGHTS OF 3" OR LESS MAY BE CONTINUOUS SLAB BLOSTERS.

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# CITY OF SANTA FE WATER DIVISION HOSPITAL TANK REPLACEMENT PROJECT ROOF PLAN

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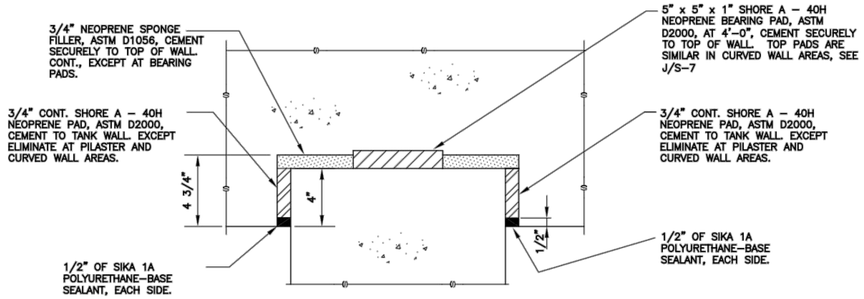
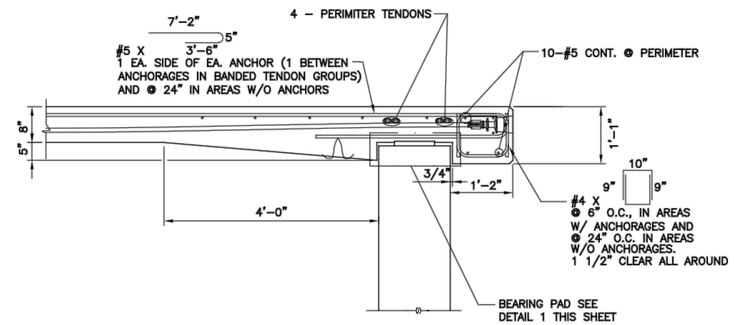


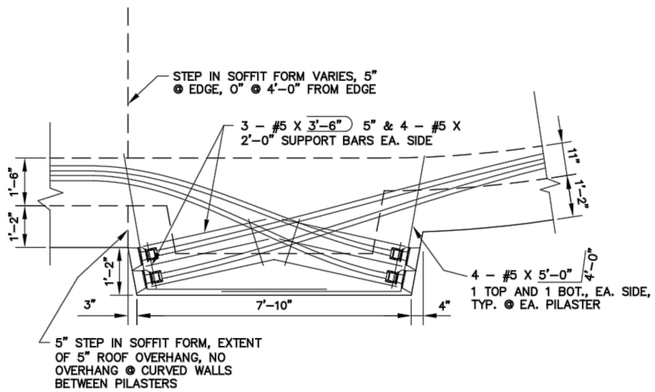

1 S6|S7 BEARING PAD DETAIL @ STRAIGHT WALLS

SCALE: NO SCALE



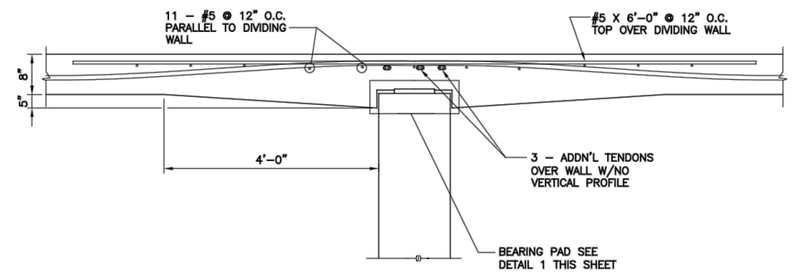

G S6|S7 TYP. WALL/ROOF SLAB SECTION

SCALE: 3/4"=1'–0"



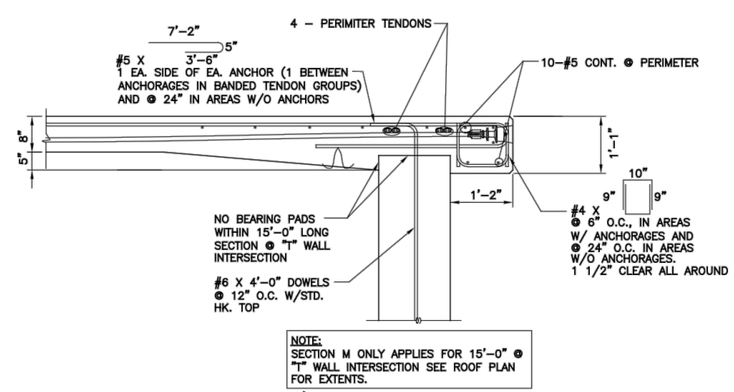

2 S6|S7 TYP. ROOF PILASTER

SCALE: 1/2"=1'–0"



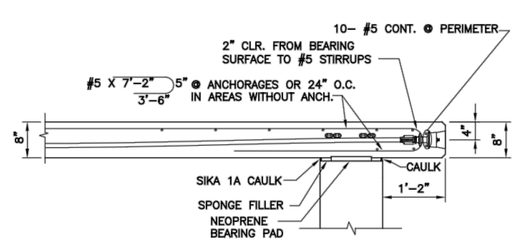

H S6|S7 INT. WALL/ROOF SLAB SECTION

SCALE: 3/4"=1'–0"




M S6|S7 WALL/ROOF SLAB SECTION

SCALE: 3/4"=1'–0"




J S6|S7 TYP. SECTION @ CURVED WALLS AND PILASTERS

SCALE: 3/4"=1'–0"

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ROOF SECTIONS AND DETAILS

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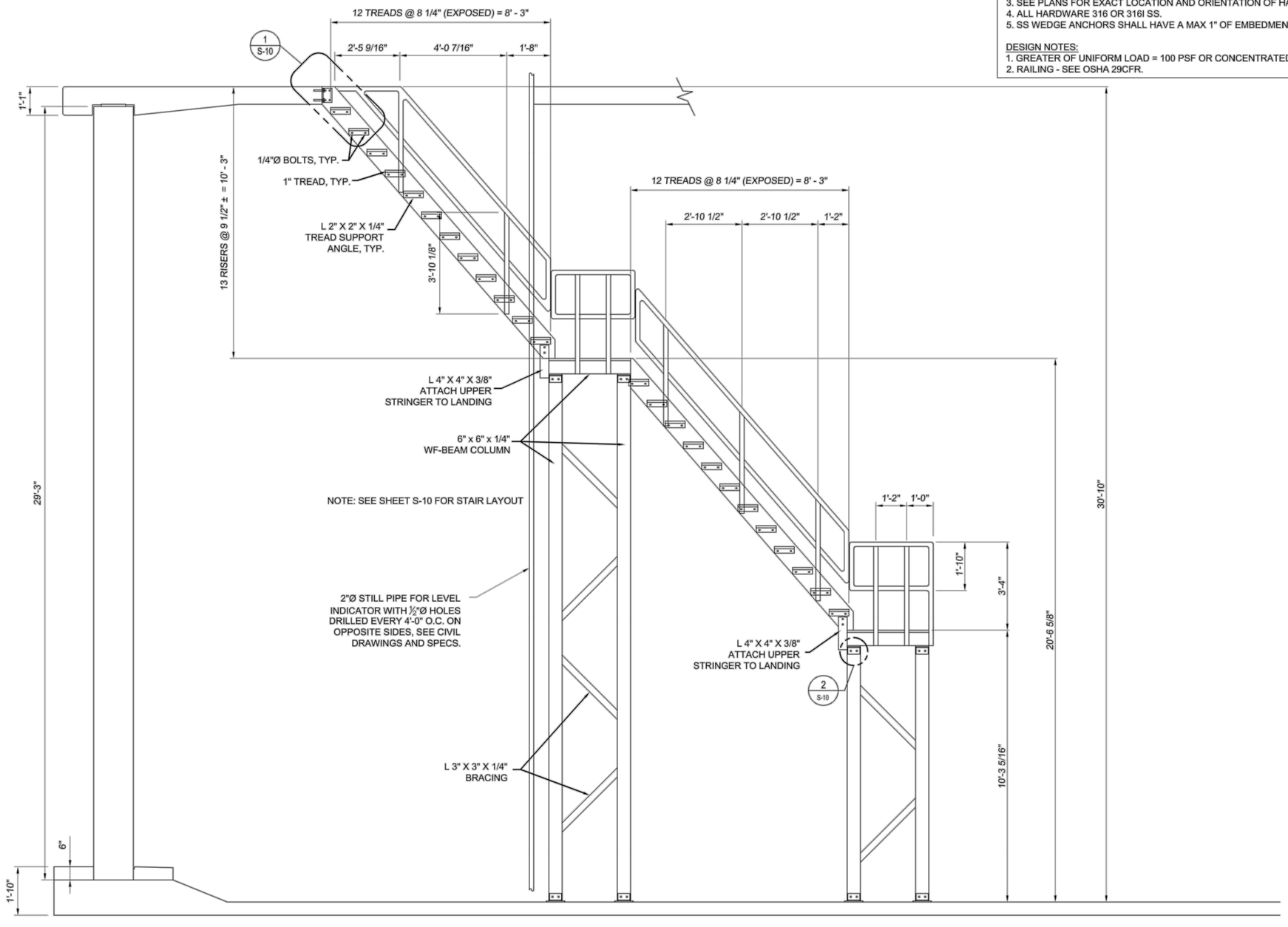
NOTES:
1. STAIR DESIGN AND GEOMETRY SHALL MEET THE REQUIREMENTS OF OSHA STANDARD - 29CFR 1910-24 'FIXED INDUSTRIAL STAIRS'. MANUFACTURER RESPONSIBLE FOR DESIGN.
2. ALL STAIR FRAMING MATERIALS, STAIR TREADS AND HANDRAIL SHALL BE FRP, NSF 61 CERTIFIED FOR CONTACT WITH POTABLE WATER, UNLESS NOTED OTHERWISE.
3. SEE PLANS FOR EXACT LOCATION AND ORIENTATION OF HATCHES AND STAIRS.
4. ALL HARDWARE 316 OR 316I SS.
5. SS WEDGE ANCHORS SHALL HAVE A MAX 1" OF EMBEDMENT INTO FLOOR SLAB.

DESIGN NOTES:
1. GREATER OF UNIFORM LOAD = 100 PSF OR CONCENTRATED LOAD = 300 LBS
2. RAILING - SEE OSHA 29CFR.




FRP STAIR PROFILE (2ND & 3RD LEVEL)

SCALE: 1/2" = 1'-0"

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HOSPITAL TANK REPLACEMENT PROJECT
STAIR PROFILE, 2ND AND 3RD LEVEL

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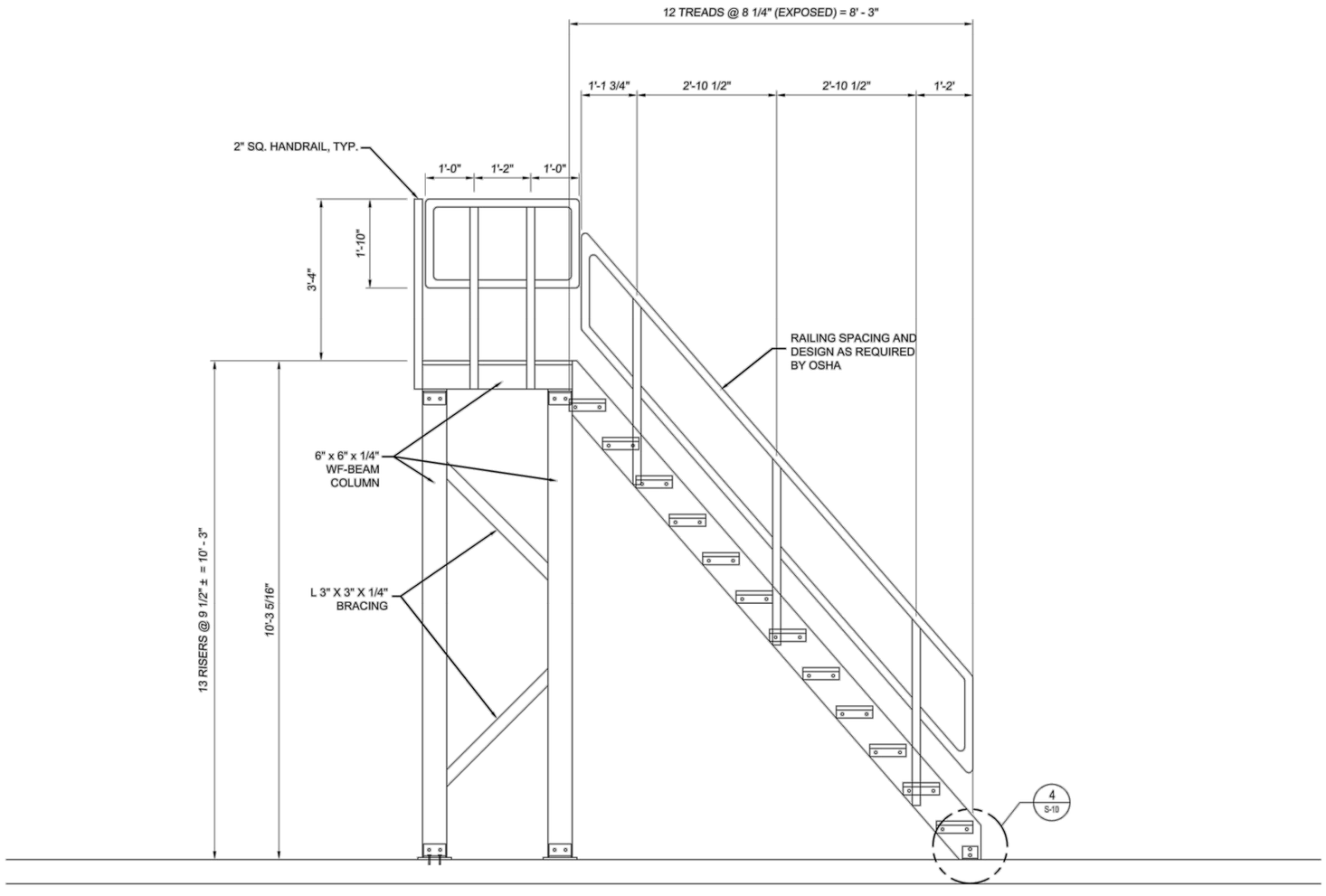


FRP STAIR PROFILE ( 1ST LEVEL)

SCALE: 1/2"=1'-0"

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CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
STAIR PROFILE, FIRST LEVEL

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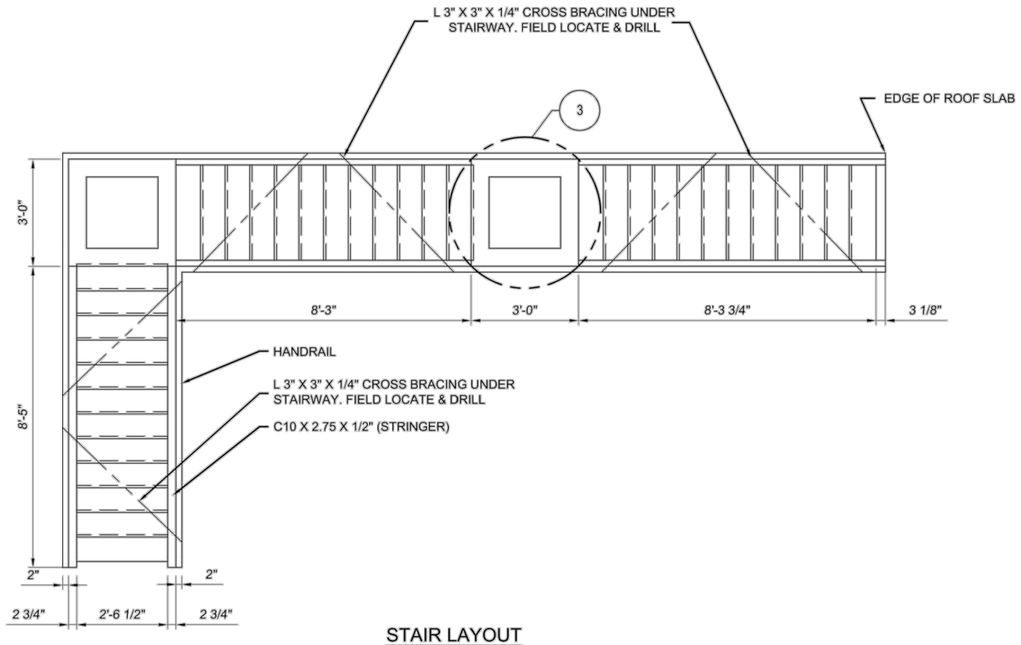


STAIR LAYOUT
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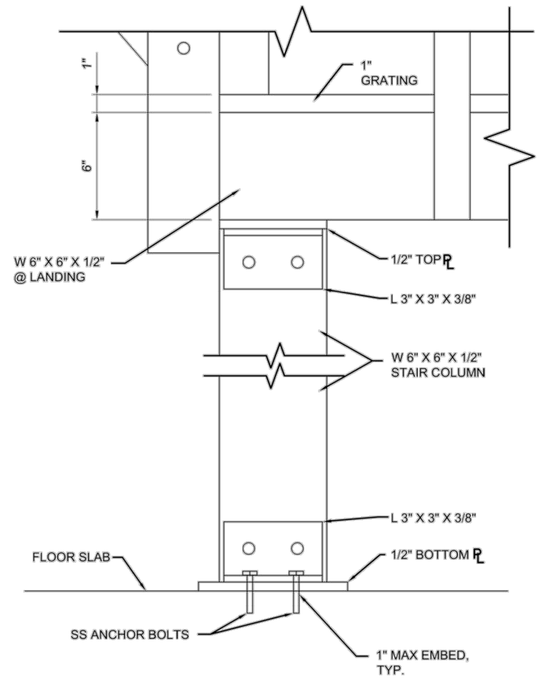


2 S8 S10 DETAIL
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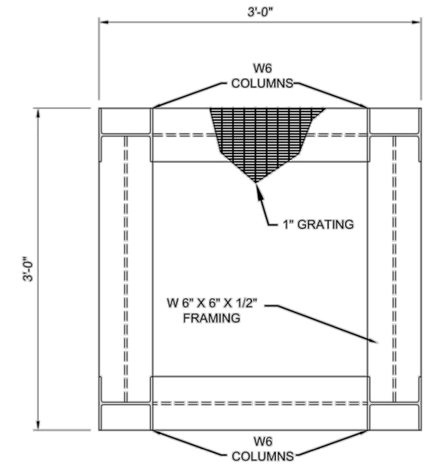


3 S10 S10 DETAIL
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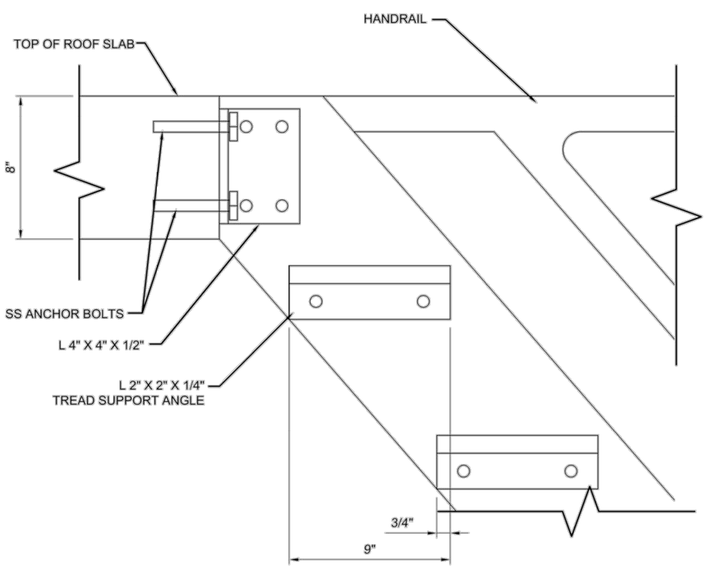


1 S8 S10 DETAIL
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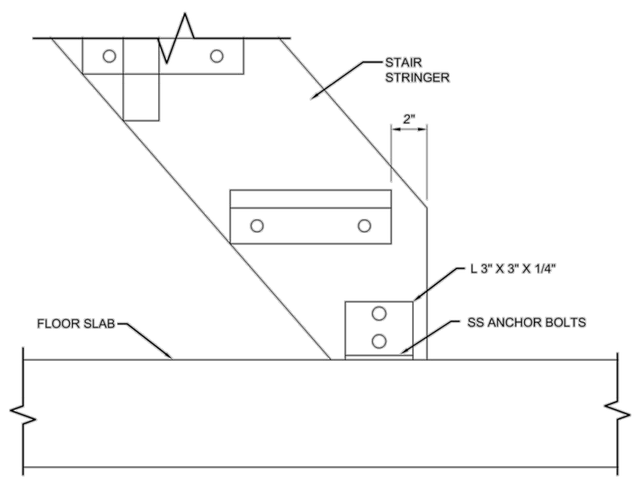


4 S9 S10 DETAIL
SCALE: 3"=1'-0"

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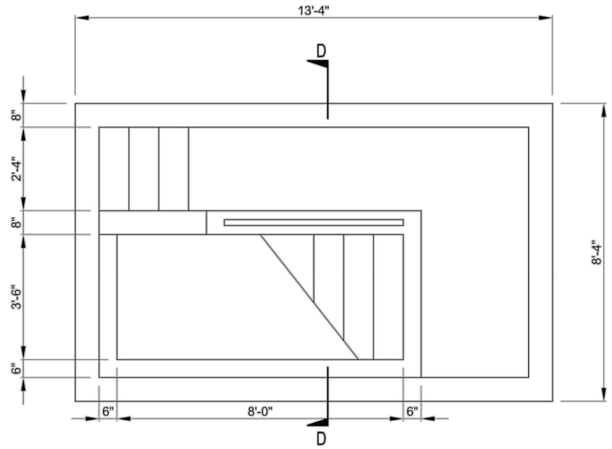
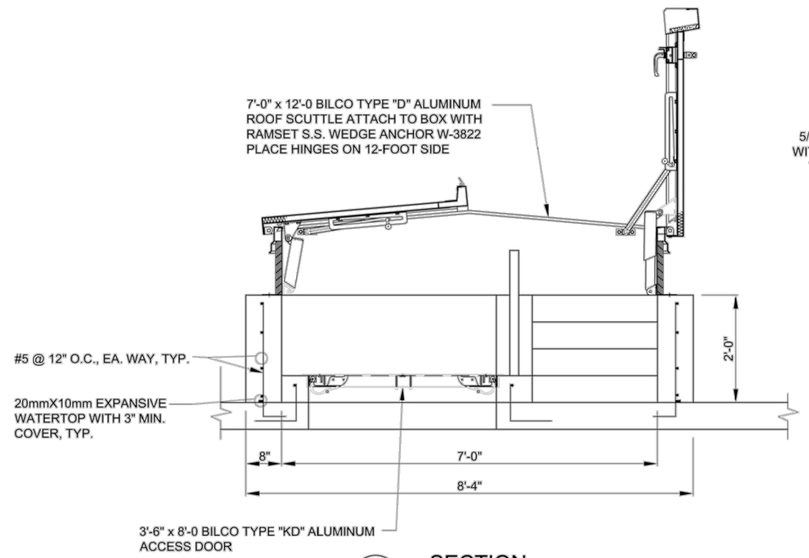



ACCESS HATCH - PLAN VIEW
SCALE: 1/2" = 1'-0"

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SECTION
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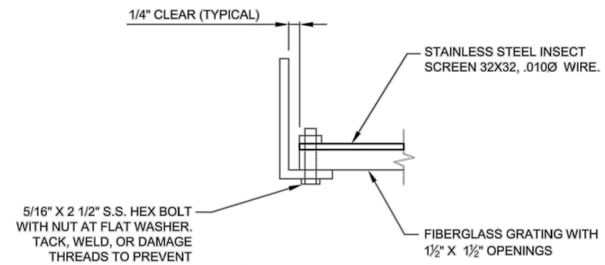


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S11 S11
DETAIL
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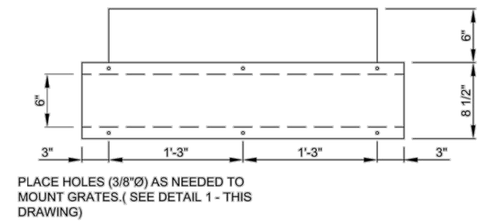


VENT - BOTTOM VIEW
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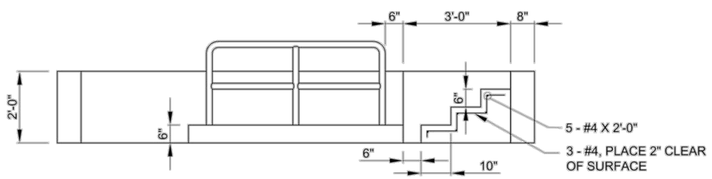


ELEVATION VIEW
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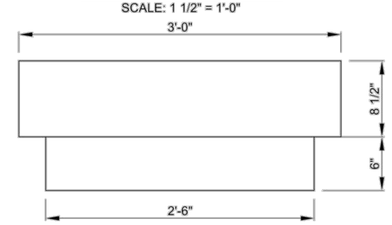


VENT - TOP VIEW
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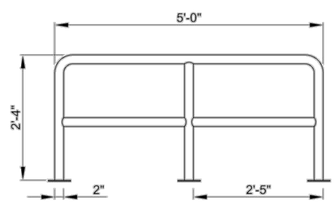


HANDRAIL DETAIL
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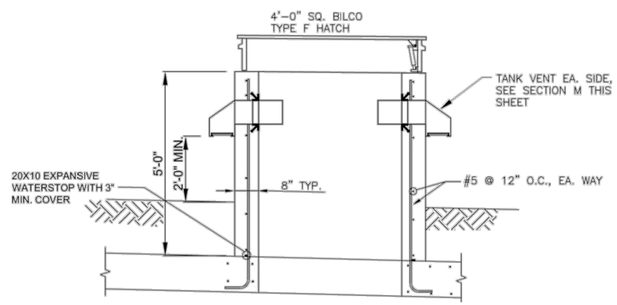


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SECTION
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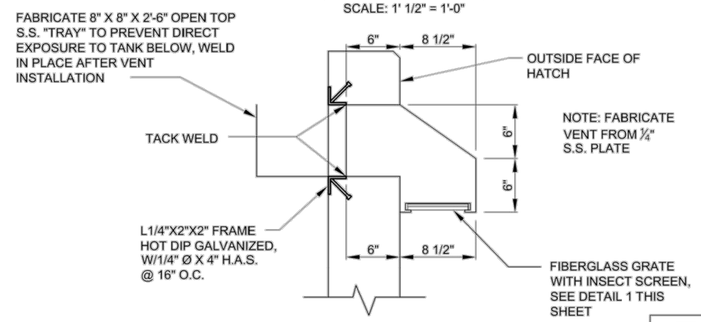


M
S11 S11
VENT SECTION
SCALE: 1 1/2"=1'-0"

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CITY OF SANTA FE — SANTA FE, NM

CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
STAIR LAYOUT AND DETAILS

ANTHONY J GALTERIO
NEW MEXICO
23375
PROFESSIONAL ENGINEER


VSL
structural TECHNOLOGIES
Structural Technologies, LLC
5161 Ward Road, Suite 1
Wheat Ridge, CO 80033
Telephone: (303)456-9887
WWW.VSL.NET


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| Designed | Drawn | Checked |
|---|---|---|
| AJG | TV | AJG |

Date: 2/19/2016
Scale: Horiz: Vert: AS NOTED
Project No: 9223842
Sheet: S-11

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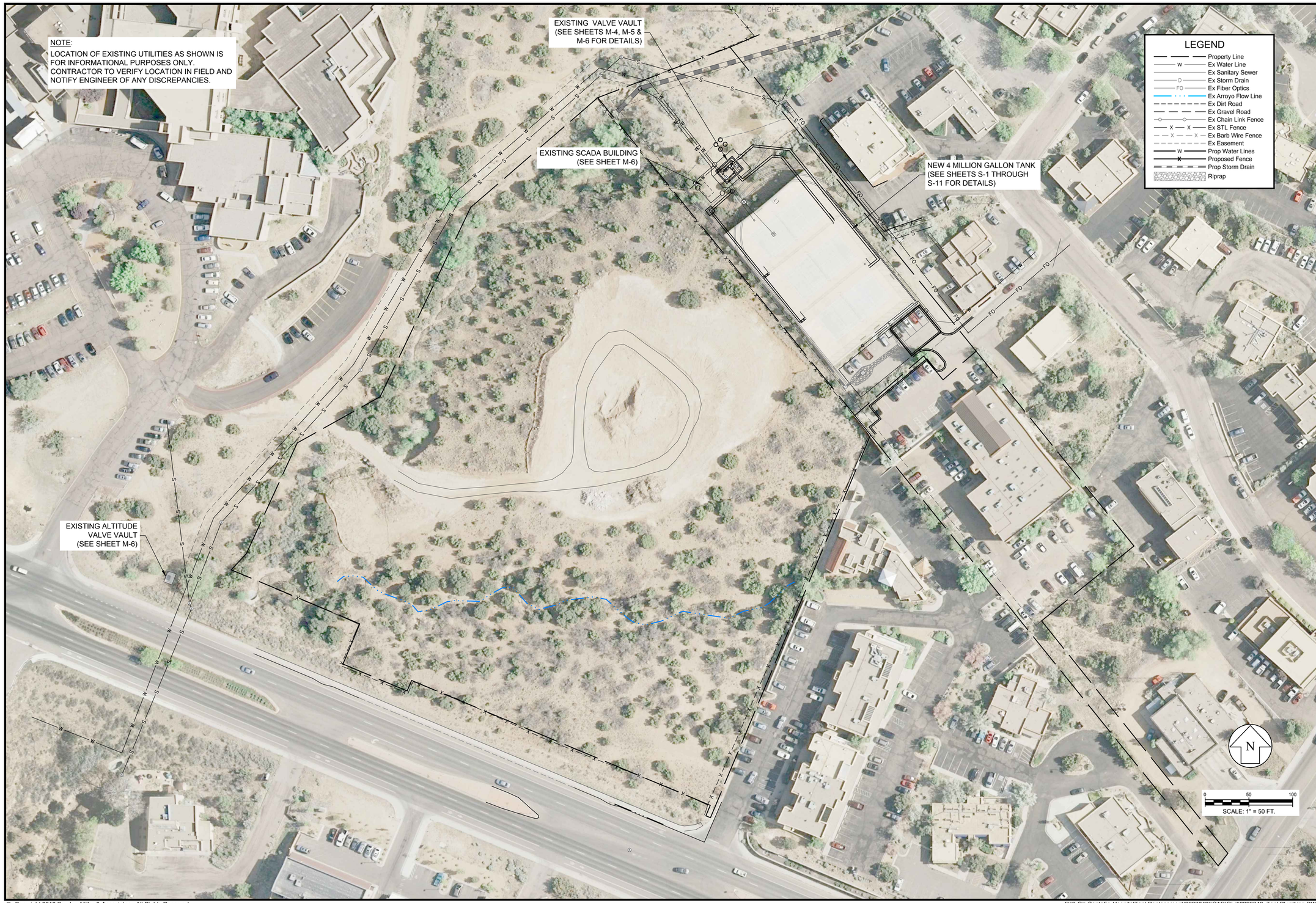


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CITY OF SANTA FE

SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK CONTROL SITE PLAN

PETER G. FANT
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Scale: Horiz: 1" = 50 FT
Vert: N/A

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NOTE:
LOCATION OF EXISTING UTILITIES AS SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY LOCATION IN FIELD AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

## LEGEND

- Property Line
- Ex Water Line
- Ex Sanitary Sewer
- Ex Storm Drain
- Ex Fiber Optics
- Ex Arroyo Flow Line
- Ex Dirt Road
- Ex Gravel Road
- Ex Chain Link Fence
- Ex STL Fence
- Ex Barb Wire Fence
- Ex Easement
- Prop Water Lines
- Proposed Fence
- Prop Storm Drain
- Alignment w/ Stationing
- Prop Water Line
- Riprap

24" INLET/OUTLET PIPE TANK TK-26-101 D.I.P. (2/M-3)
24" x 24" D.I. 45° BEND STA: 0+65.89
N: 1,695,173.31 E: 1,731,708.76
13'-4" x 8'-4" ACCESS HATCH WITH STAIRS (SEE SHEET S-11)
N: 1,695,048.00 E: 1,731,810.08
24" D.I. 90° BEND STA: 2+27.04
161.15 LF 24" D.I.P. (1/M-3)
CONDUIT TO SCADA FOR LEVEL, TEMPERATURE & INTRUSION DETECTION (SEE PIPING & INSTRUMENTATION DIAGRAM)
13.80 LF 24" D.I.P.
42.41 LF 24" D.I.P.
11.00 LF 24" D.I.P.
24" x 24" D.I. 45° BEND STA: 0+61.56
N: 1,695,164.92 E: 1,731,699.72
24" x 24" D.I. 45° BEND STA: 0+50.56
N: 1,695,166.08 E: 1,731,688.78
94.20 LF 24" D.I.P.
24" INLET/OUTLET PIPE TANK TK-26-102 D.I.P.
24" INLET/OUTLET SILT STOP STA: 1+55.76 (1/D-7)
24" INLET/OUTLET SILT STOP STA: 2+40.84 (1/D-7)
2" HDPE STILL PIPE WITH FIBERGLASS UNISTRUT FOR MOUNTING ONTO STAIRS. PIPE SHALL HAVE ½" HOLES EVERY 4 FEET ON OPPOSITE SIDE (7/D-7)
N: 1,695,177.77 E: 1,731,666.58
24" x 24" D.I. 45° BEND STA: 0+23.47
23.47 LF 24" D.I.P.
44.00 LF 24" D.I.P.
CONNECT TO EX STUB-OUT W/ RESTRAINED MECHANICAL JOINT STA: 0+00.00
CONNECT TO EX STUB-OUT W/ RESTRAINED MECHANICAL JOINT STA: 0+00.00
24" D.I. 90° BEND STA: 0+06.57
6.57 LF 24" D.I.P.
CONNECT TO EXISTING 2' LONG 20" STEEL FE x PE SPOOL WITH 20" D.I. RESTRAINED COUPLING
5.00 LF 20" D.I.P.
20" D.I. 90° BEND STA: 0+00.00
CONNECT TO EXISTING 20" OVERFLOW PIPE
24" x 20" D.I. REDUCER STA: 0+05.00
28.56 LF 24" D.I.P.
N: 1,695,103.45 E: 1,731,617.84
SD OUTLET 20" D.I. 90° VERT BEND STA: 0+33.56
SEE SHEETS M-4, M-5 & M-6 FOR VALVE VAULT PLUMBING
96.34 LF 20" D.I.P.
66.12 LF 20" D.I.P.
CONDUIT TO SCADA FOR LEVEL, TEMPERATURE & INTRUSION DETECTION (SEE PIPING & INSTRUMENTATION DIAGRAM)
OVERFLOW INLET 20" D.I. 90° BEND STA: 1+31.43 (2/D-7)
4'-0" x 4'-0" ACCESS HATCH (SEE SHEET S-11)
OVERFLOW INLET 20" D.I. 90° BEND STA: 2+04.04 (2/D-7)
6.38 LF 20" D.I.P.
N: 1,695,027.34 E: 1,731,679.38
N: 1,694,975.93 E: 1,731,720.96
TANK TK-26-101 OVERFLOW D.I. PIPE W/ FLANGED CONNECTIONS (2/D-7)
TYPE 1 MEDIAN DROP INLET (SEE NMDOT 623-02-1/1 FOR DETAILS) STA: 0+33.56
8' HIGH CHAIN LINK FENCE 8' SQUARE WITH PEDESTRIAN GATE (SEE SHEET D-1 FOR DETAILS)
TANK TK-26-102 OVERFLOW D.I. PIPE W/ FLANGED CONNECTIONS (2/D-7)
20" D.I. 90° VERT BEND STA: 1+31.43
20" D.I. 90° TEE STA: 1+31.43
2 - 20" D.I. 90° VERT BENDS STA: 1+97.55
20" OVERFLOW PIPE TANK TK-26-102 D.I.P. (4/M-3)
20" OVERFLOW PIPE TANK TK-26-101 D.I.P. (4/M-3)

TANK TK-26-102

TANK TK-26-101

SCALE: 1" = 10 FT.

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CITY OF SANTA FE

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# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK PLUMBING PLAN

PETER G. FANI NEW MEXICO 12203 LICENSED PROFESSIONAL ENGINEER

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Vert: N/A

Project No: 9223842

Sheet: M-2

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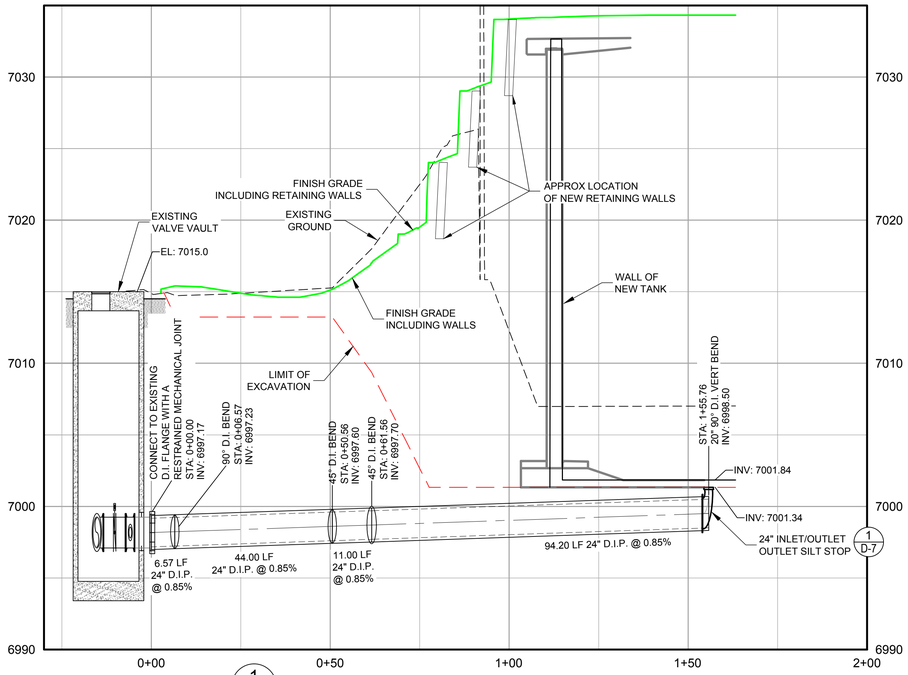
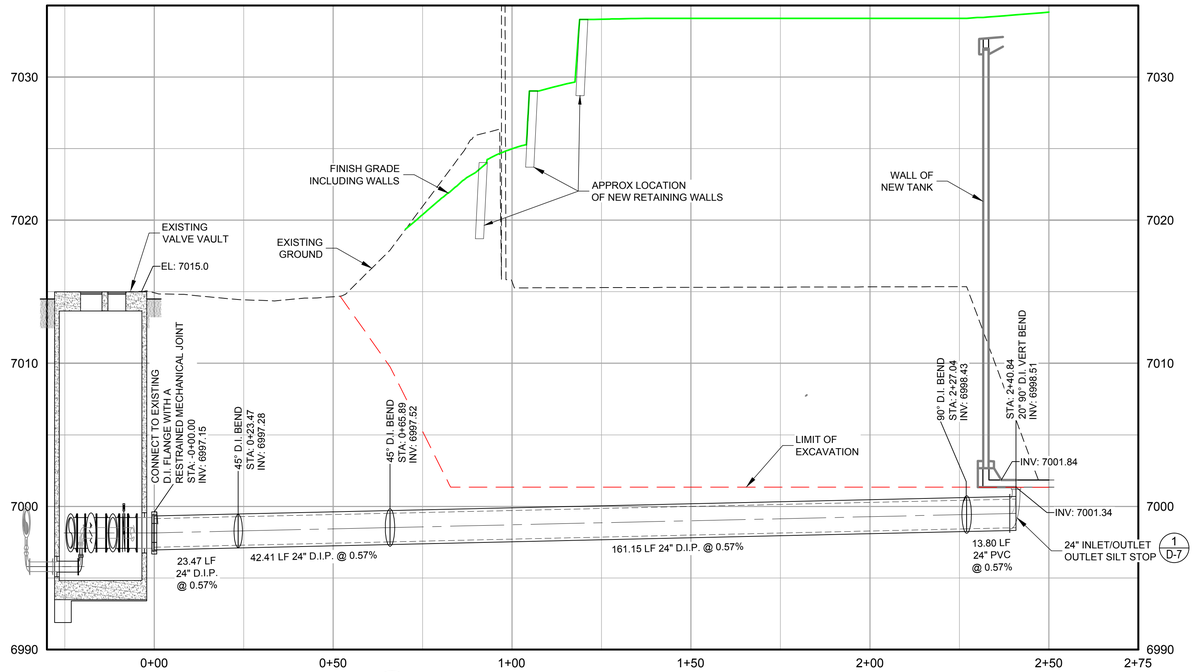


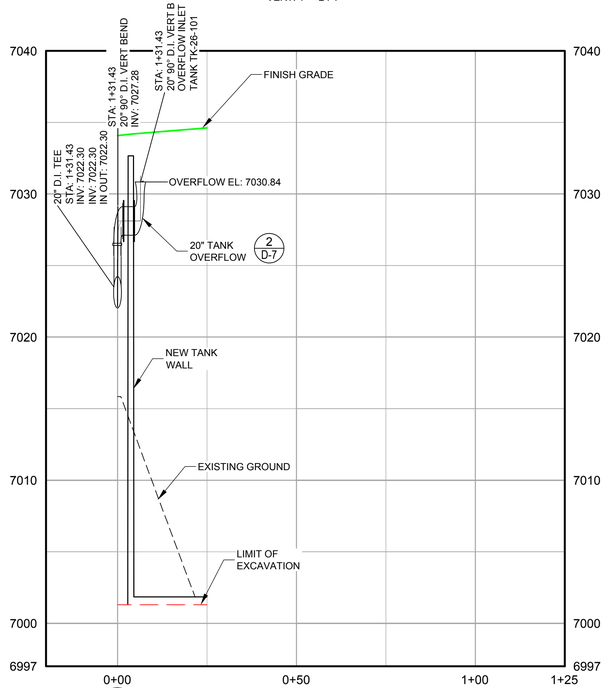

1 M-3 PROFILE - TK-26-102 INLET-OUTLET PIPE

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 2 FT



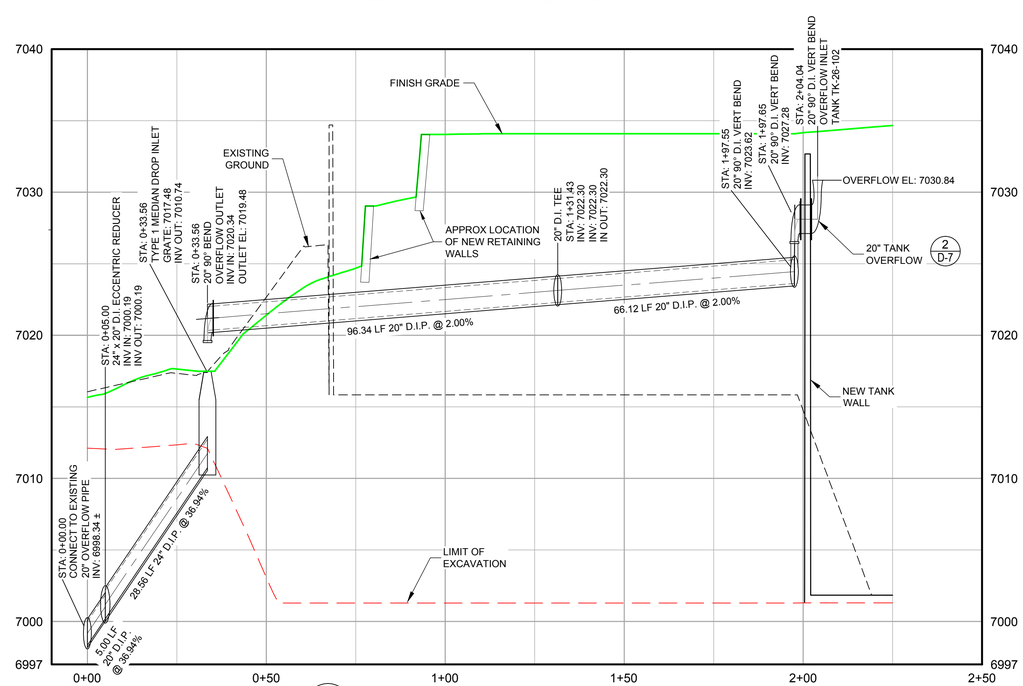

2 M-3 PROFILE - TK-26-101 INLET-OUTLET PIPE

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 2 FT




3 M-3 PROFILE - TK-26-102 OVERFLOW PIPE

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 2 FT




4 M-3 PROFILE - TK-26-101 OVERFLOW PIPE

SCALE: HORIZ. 1" = 10 FT
VERT. 1" = 2 FT

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CITY OF SANTA FE — SANTA FE, NM

# CITY OF SANTA FE WATER DIVISION
# HOSPITAL TANK REPLACEMENT PROJECT
# TANK INLET/OUTLET PLAN & PROFILE

PETER G. FANT — NEW MEXICO — 12203 — LICENSED PROFESSIONAL ENGINEER

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Scale: Horiz: 1" = 20 FT
Vert: 1" = 5 FT

Project No: 9223842

Sheet: M-3

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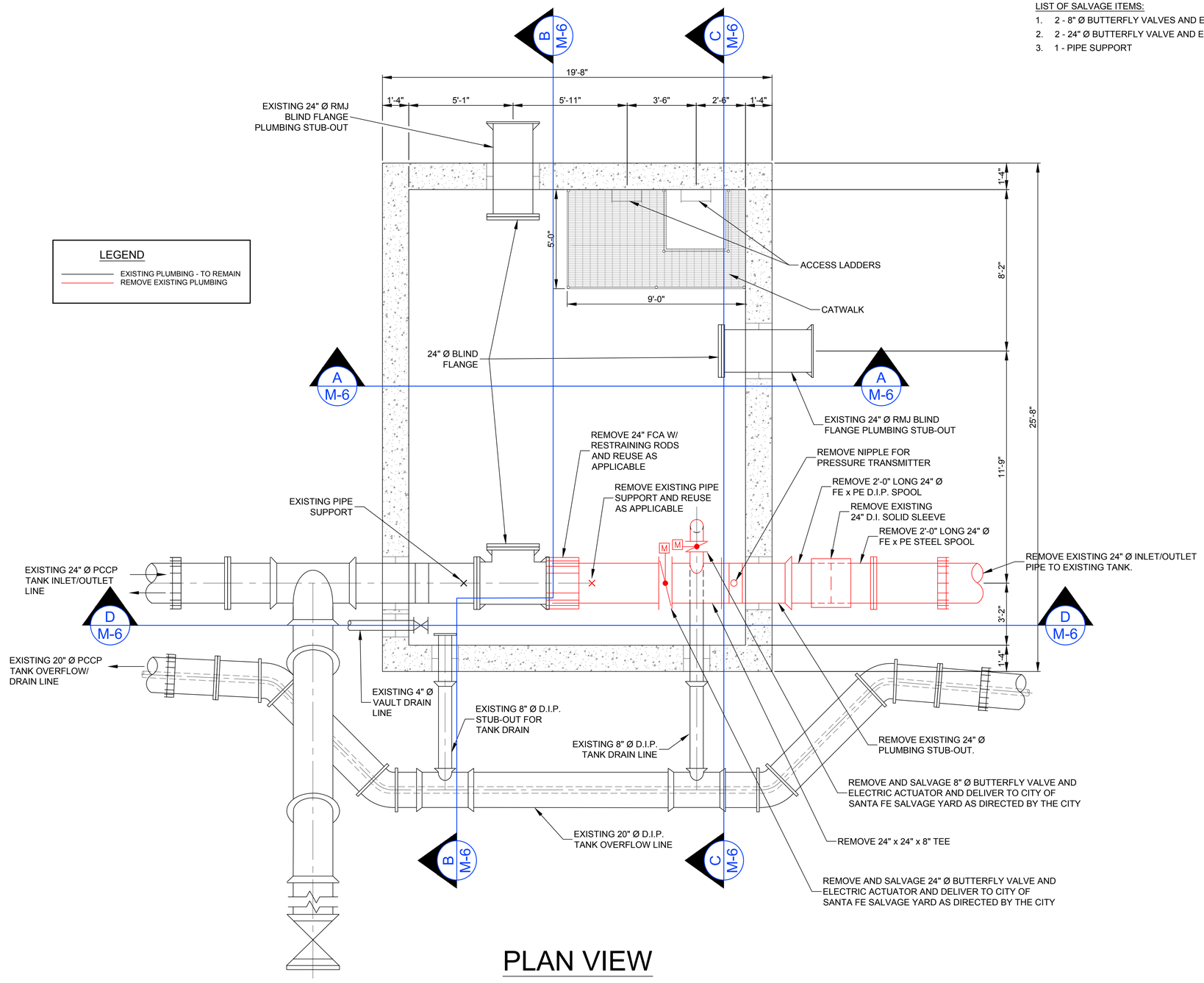
LIST OF SALVAGE ITEMS:

1. 2 - 8" Ø BUTTERFLY VALVES AND ELECTRIC ACTUATOR.
2. 2 - 24" Ø BUTTERFLY VALVE AND ELECTRIC ACTUATOR.
3. 1 - PIPE SUPPORT




# PLAN VIEW

SCALE: 3/8" = 1'-0"

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CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
EXISTING VALVE VAULT

PETER C. FANI
NEW MEXICO
12203
LICENSED PROFESSIONAL ENGINEER

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Scale: Horiz: 3/8" = 1 FT
Vert: N/A

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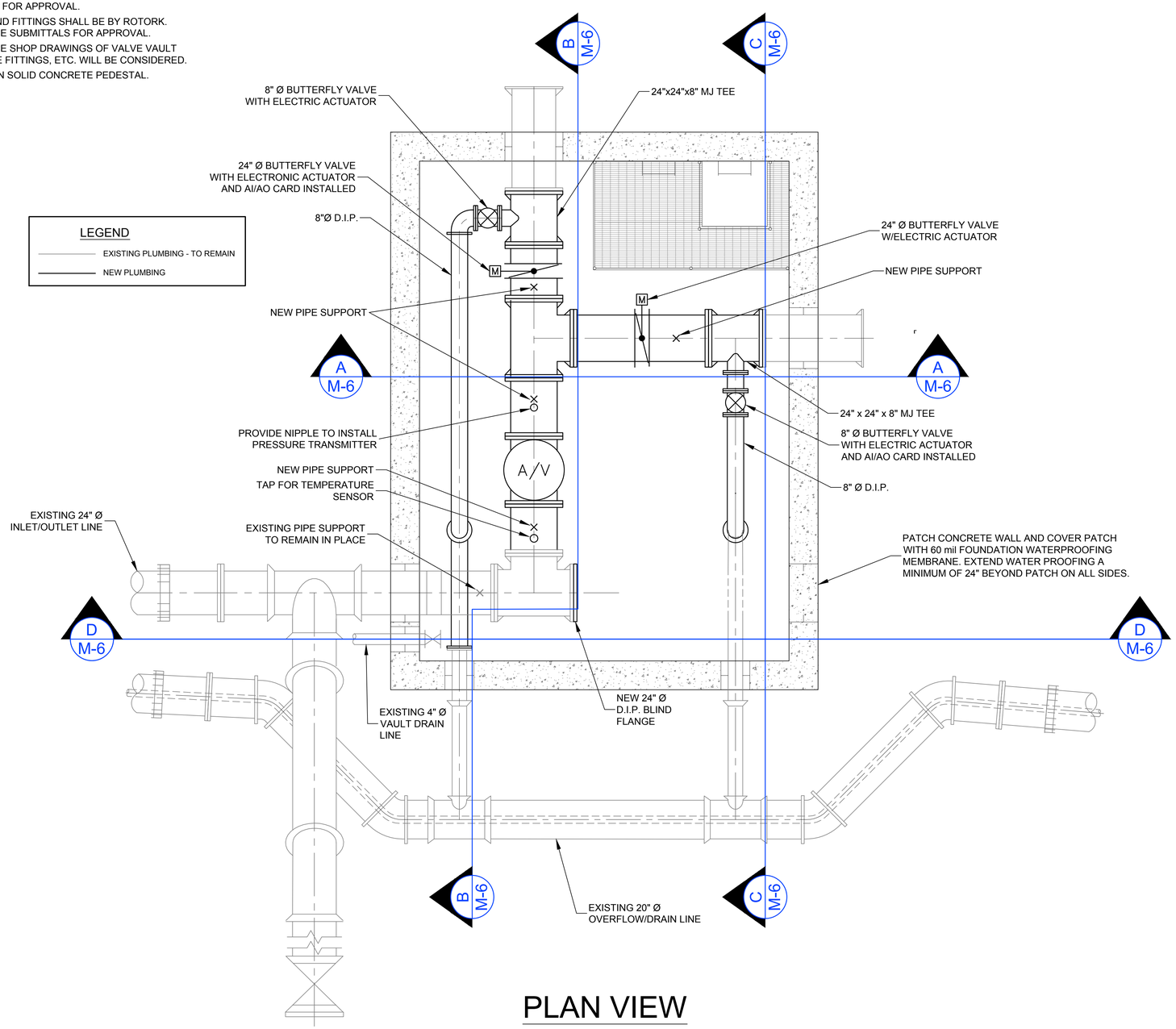
NOTES:

1. ALL NEW VALVES SHALL BE PRATT OR WATT VALVES. CONTRACTOR TO PROVIDE SUBMITTALS FOR APPROVAL.
2. ELECTRIC ACTUATORS AND FITTINGS SHALL BE BY ROTORK. CONTRACTOR TO PROVIDE SUBMITTALS FOR APPROVAL.
3. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF VALVE VAULT PLUMBING. MEGA-FLANGE FITTINGS, ETC. WILL BE CONSIDERED.
4. PUMP TO BE MOUNTED ON SOLID CONCRETE PEDESTAL.




# PLAN VIEW

SCALE: 3/8" = 1'-0"

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CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
VALVE VAULT PLUMBING

PETER C. FANT
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12203
LICENSED PROFESSIONAL ENGINEER
2/19/16

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Vert: N/A

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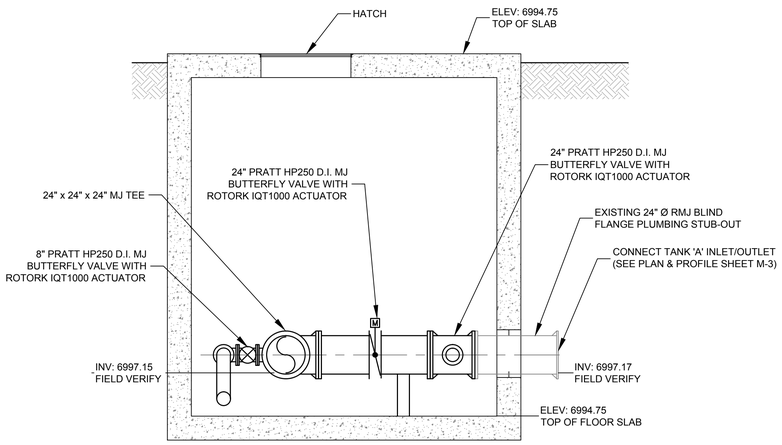
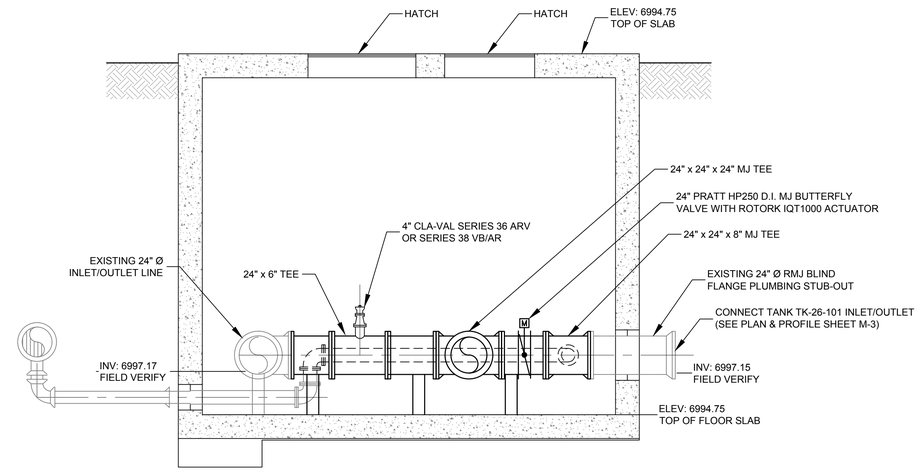


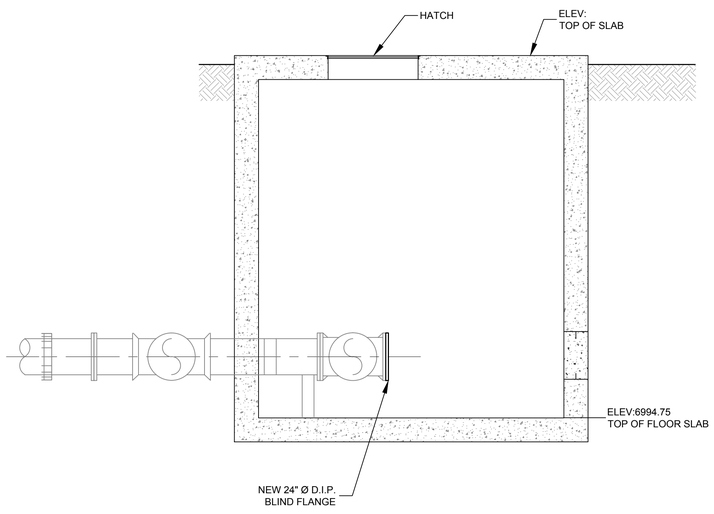

A M-6 VAULT SECTION
SCALE: 1/4" = 1'-0"



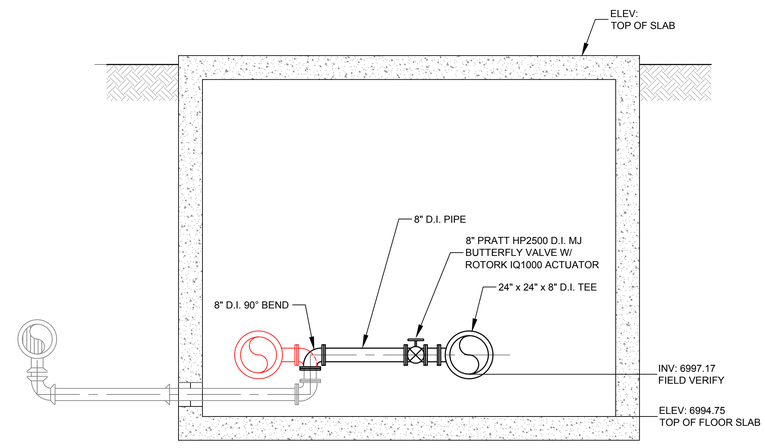

B M-6 VAULT SECTION
SCALE: 1/4" = 1'-0"

LEGEND

EXISTING PLUMBING - TO REMAIN
REMOVE EXISTING PLUMBING
NEW PLUMBING




D M-6 VAULT SECTION
SCALE: 1/4" = 1'-0"




C M-6 VAULT SECTION
SCALE: 1/4" = 1'-0"

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CITY OF SANTA FE WATER DIVISION
HOSPITAL TANK REPLACEMENT PROJECT
VALVE VAULT SECTIONS

PETER G. FANT
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12203
LICENSED PROFESSIONAL ENGINEER

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