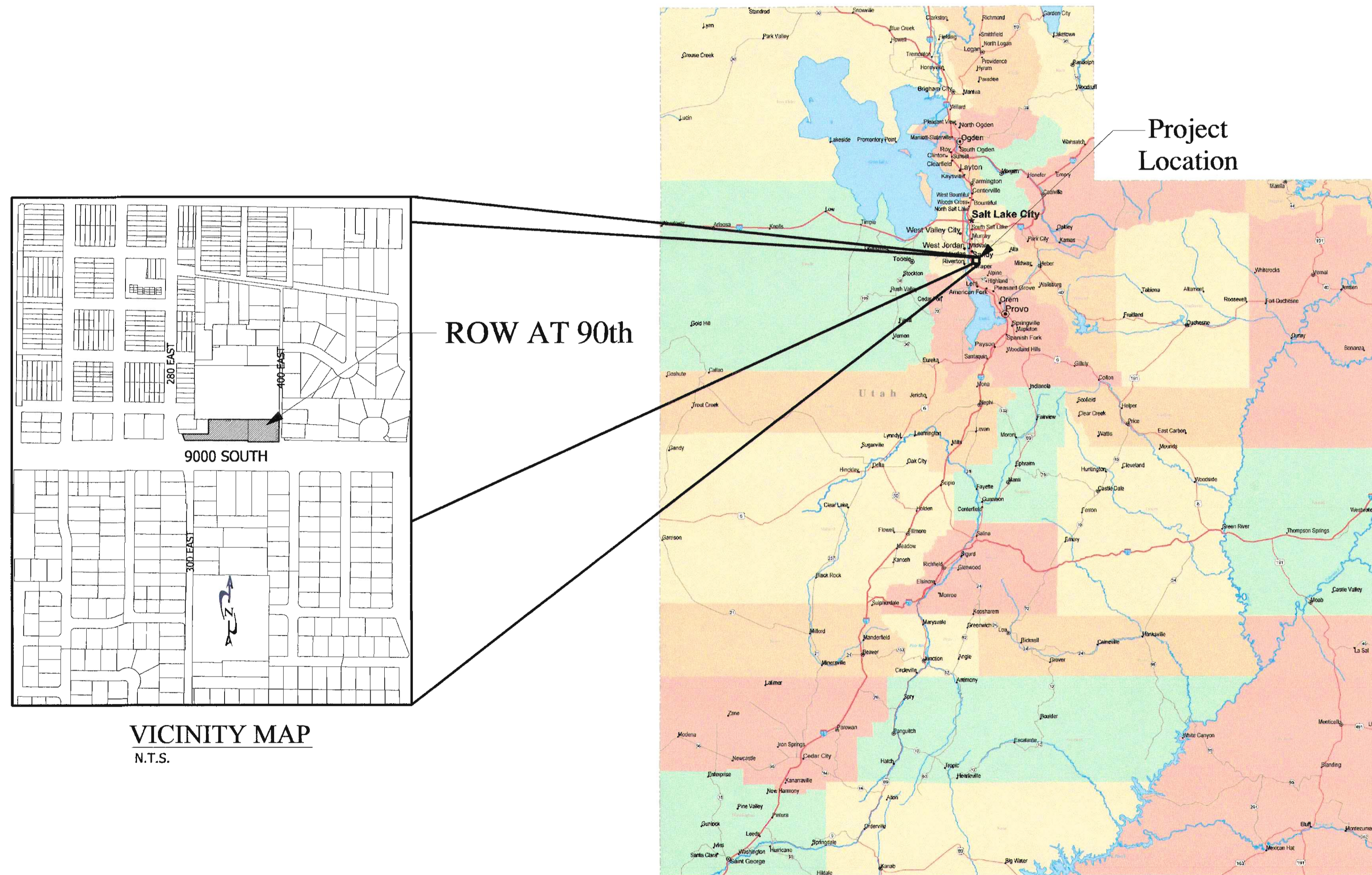


ROW AT 90th

CONSTRUCTION DRAWINGS

LOCATED IN THE NORTHEAST QUARTER OF SECTION 6,
TOWNSHIP 3 SOUTH, RANGE 1 EAST,
SALT LAKE BASE & MERIDIAN,
SANDY CITY, UTAH
10 UNITS



VICINITY MAP
N.T.S.

SHEET INDEX

- CV1 COVER SHEET
- NT1 GENERAL NOTES
- PL1 PLAT
- SP1 SITE PLAN
- UT1 UTILITY PLAN
- GP1 GRADING & DRAINAGE PLAN
- PP1 PLAN & PROFILE - PRIVATE ALLEY
- PP2 PLAN & PROFILE - OFFSITE SEWER
- SW1 STORM WATER POLLUTION PREVENTION PLAN
- LS1 LANDSCAPE PLAN
- DT1 DETAIL SHEET
- E1.0 SITE PHOTOMETRIC PLAN

OWNED/DEVELOPED BY:
GARBETT HOMES
RICHARD WELCH
273 NORTH CAPITOL STREET
SALT LAKE CITY, UTAH 84103
(801) 456-2430

PLANS PREPARED BY:
PROTERRA GROUP
DAVE REDDISH - PROJECT MANAGER
1654 REUNION AVENUE, SUITE 10A
SOUTH JORDAN, UTAH 84095
(801) 253-0248 TEL
(801) 253-6139 FAX

MUNICIPALITY:
SANDY CITY
COMMUNITY DEVELOPMENT
10000 CENTENNIAL PARKWAY
SANDY, UTAH 84070
(801) 568-7250 TEL
(801) 568-7278 FAX



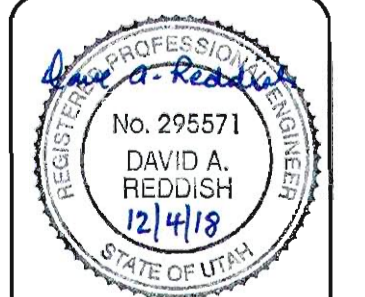
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ROW AT 90th
COVER SHEET
CONSTRUCTION DRAWINGS

PROTERRA GROUP
1654 Reunion Ave, Suite 10A, South Jordan, Utah, 84095
Phone: (801) 253-0248 Fax: (801) 253-6139
www.proterragroup.com



SHEET
CV1

STREETLIGHT NOTES

1. NOTIFY SANDY CITY PUBLIC UTILITIES INSPECTOR (801-568-7280), AT LEAST ONE BUSINESS DAY (24 HOURS) PRIOR TO BEGINNING CONSTRUCTION.
2. A PRE-CONSTRUCTION MEETING IS REQUIRED ONCE FINAL APPROVAL HAS BEEN GRANTED. THE PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED THROUGH SANDY CITY PUBLIC WORKS DEPARTMENT.
3. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REVISION OF THE SANDY CITY STANDARD SPECIFICATIONS AND DETAILS FOR MUNICIPAL CONSTRUCTION AND/OR OTHER REQUIREMENTS AS SET FORTH IN THE PUBLIC UTILITIES FINAL REVIEW AND APPROVAL LETTER ESTABLISHED FOR THE DEVELOPMENT. SPECIFICATIONS AND DETAILS CAN BE OBTAINED ON THE SANDY CITY WEBSITE.
4. SUBMITTALS ARE REQUIRED TO BE APPROVED BY THE CONSULTING ENGINEER FOR STREETLIGHTS, JUNCTION BOXES, AND ELECTRICAL WIRING. SUBMITTALS MUST HAVE SUFFICIENT INFORMATION TO SHOW THAT THE PROPOSED ITEMS CONFORM TO SANDY CITY STANDARDS AND SPECIFICATIONS.
5. INSTALLATIONS SHALL BE LOCATED AS INDICATED ON THE APPROVED PLANS FOR THE PROJECT. FIELD MODIFICATIONS MUST BE APPROVED BY THE SANDY CITY PUBLIC UTILITIES INSPECTOR.
6. STREET LIGHT POLES SHALL NOT BE INSTALLED IN A MANNER THAT WILL NOT HINDER THE OPERATION OF FIRE HYDRANTS, UNDERGROUND WATER SYSTEM ISOLATION VALVES, AND OTHER UTILITIES.
7. INSTALLATIONS WITHIN CLOSE PROXIMITY TO TREES SHALL BE AVOIDED UNLESS APPROVED BY SANDY CITY PUBLIC UTILITIES INSPECTOR.

WATER NOTES

1. NOTIFY SANDY CITY PUBLIC UTILITIES INSPECTOR (801-568-7280), AT LEAST ONE BUSINESS DAY (24 HOURS) PRIOR TO BEGINNING CONSTRUCTION.
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4. SUBMITTALS ARE REQUIRED TO BE APPROVED BY THE CONSULTING ENGINEER FOR ALL BEDDING, BACKFILL, PIPE, METERS, BOXES, VAULTS, VALVES, FIRE HYDRANTS, BLOWOFFS, VAULTS, ETC. RELATING TO THE WATER SYSTEM. SUBMITTALS MUST HAVE SUFFICIENT INFORMATION TO SHOW THAT THE PROPOSED ITEMS CONFORM TO SANDY CITY STANDARDS AND SPECIFICATIONS.
5. CONSTRUCTION WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM (UPDES) REGULATIONS.
6. LOCATE WATER LINE 4-FEET OFF LIP OF GUTTER ON THE NORTH AND/OR EAST SIDE OF ROADWAY.
7. A MINIMUM OF 48-INCHES AND A MAXIMUM 60-INCHES OF COVER FROM THE TOP OF THE PIPE TO THE FINISH GRADE IS REQUIRED.
8. FOR DUCTILE IRON PIPE, USE THICKNESS CLASS 52 OR BETTER.
9. FOR POLYVINYL CHLORIDE (PVC) PIPE, USE CLASS DR-14 OR BETTER. 10 GAUGE WIRE SHALL BE PLACED ON TOP OF THE PIPE (PER SANDY CITY SPECIFICATIONS) FOR FUTURE RELOCATION. NO DEFLECTION IN PIPE JOINTS WILL BE ALLOWED ON PVC PIPES.
10. ALL MECHANICAL JOINTS MUST BE RESTRAINED USING MEGA LUGS OR APPROVED EQUAL.
11. USE 6-INCH COMPRESSION TYPE HYDRANT BY MUELLER CENTURION OR CLOW MEDALLION. EXISTING HYDRANTS REQUIRED FOR FIRE PROTECTION THAT DO NOT MEET CURRENT STANDARDS SHALL BE UPGRADED TO MEET CURRENT SANDY CITY STANDARDS AND SPECIFICATIONS.
12. WHEN THE DISTANCE FROM THE WATER MAIN TO THE FIRE HYDRANT IS GREATER THAN 6-FEET, AN ADDITIONAL AUXILIARY VALVE SHALL BE FLANGED TO THE FIRE HYDRANT.
13. ALL DEAD ENDS SHALL BE PLUGGED WITH A 2-INCH WASHOUT OR END WITH A FIRE HYDRANT.
14. ALL DUCTILE IRON WATER LINES, FITTINGS, AND VALVES SHALL BE POLY-BAGGED IN ACCORDANCE WITH SANDY CITY STANDARDS AND SPECIFICATIONS.
15. ALL WATER LINES SHALL BE BEDDED WITH SAND (6-INCHES MINIMUM BELOW AND 12-INCHES MINIMUM ON EACH SIDE AND ON TOP OF THE PIPE)

GENERAL NOTES

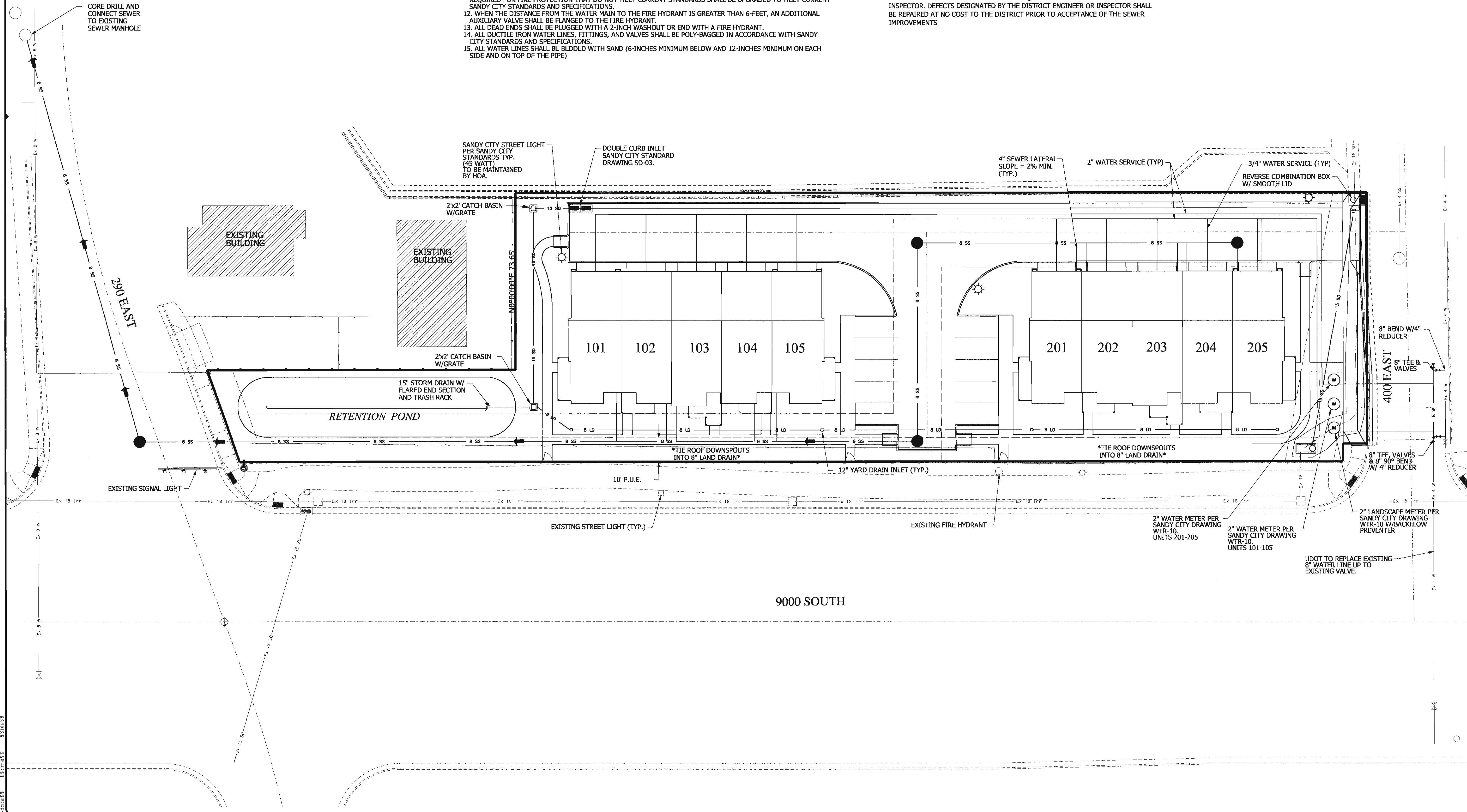
1. ALL UTILITY BOXES TO BE LOCATED AT LEAST FIVE (5) FEET BEHIND THE FRONT PROPERTY LINE, OUT OF SITE VIEW TRIANGLES AND NEAR SIDE PROPERTY LINES.
2. ALL PUBLIC IMPROVEMENTS, WHICH ARE TO BE OWNED AND MAINTAINED BY SANDY CITY, SHALL BE CONSTRUCTED ACCORDING TO THE SANDY CITY STANDARD SPECIFICATIONS AND DETAILS FOR MUNICIPAL CONSTRUCTION (LATEST EDITION). THE SPECIFICATIONS CAN BE FOUND IN .PDF FORMAT ONLINE AT WWW.SANDY.UTAH.GOV (CLICK ON "DEPARTMENTS", THEN "PUBLIC WORKS", THEN "STANDARD SPECIFICATIONS").

SEWER CONSTRUCTION NOTES

1. SEWER IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH SANDY SUBURBAN IMPROVEMENT DISTRICT (SSID) DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS. COPIES OF THE DISTRICT STANDARDS AND SPECIFICATIONS ARE AVAILABLE AT THE DISTRICT OFFICE, 8855 S. 700 W. SANDY, UTAH 84070.
2. VIDEO INSPECTION, AIR TESTS, VACUUM TESTS OF MANHOLES AND DEFLECTION TESTS SHALL BE PERFORMED ON ALL INSTALLED SEWER IMPROVEMENTS PRIOR TO FINAL ACCEPTANCE. ADDITIONAL TESTS MAY BE REQUIRED BY THE DISTRICT ENGINEER OR INSPECTOR. DEFECTS DESIGNATED BY THE DISTRICT ENGINEER OR INSPECTOR SHALL BE REPAIRED AT NO COST TO THE DISTRICT PRIOR TO ACCEPTANCE OF THE SEWER IMPROVEMENTS



CORE DRILL AND CONNECT SEWER TO EXISTING SEWER MANHOLE



JOB NO. GAR025

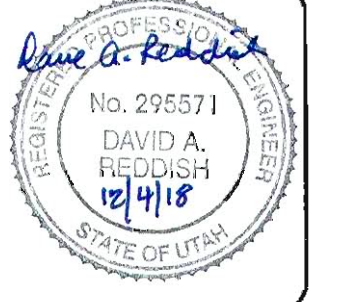
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ROW AT 90th
UTILITY PLAN
CONSTRUCTION DRAWINGS

PROTERRA GROUP
1654 Remon Ave. Suite 10A, South Jordan, Utah 84095
Phone: (801) 253-0248 Fax: (801) 253-6139
www.proterragroup.com



SHEET
UT1

STORM WATER NOTES

- NOTIFY SANDY CITY PUBLIC UTILITIES INSPECTOR (801-568-7280), AT LEAST ONE BUSINESS DAY (24 HOURS) PRIOR TO BEGINNING CONSTRUCTION.
- A PRE-CONSTRUCTION MEETING IS REQUIRED ONCE FINAL APPROVAL HAS BEEN GRANTED. THE PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED THROUGH SANDY CITY PUBLIC WORKS DEPARTMENT.
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- SUBMITTALS ARE REQUIRED TO BE APPROVED BY THE CONSULTING ENGINEER FOR ALL BEDDING, BACKFILL, PIPE, AND STRUCTURES (INLET BOXES, COMBO BOXES, AND JUNCTION BOXES). SUBMITTALS MUST HAVE SUFFICIENT INFORMATION TO SHOW THAT THE PROPOSED ITEMS CONFORM TO SANDY CITY STANDARDS AND SPECIFICATIONS.
- CONSTRUCTION WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM (UPDES) REGULATIONS.
- ALL MATERIALS AND WORK DONE IN UDOT RIGHT-OF-WAY SHALL CONFORM TO UDOT STANDARDS AND SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE USED WHEREVER GROUT IS REQUIRED FOR THE STORM DRAIN FACILITIES.
- CUT PIPES OFF FLUSH WITH THE INSIDE WALL OF THE BOX OR MANHOLE AND GROUT AT CONNECTION OF PIPE TO BOX TO A SMOOTH FINISH. ADDITIONALLY, ALL JAGGED OR SHARP EDGES AT PIPE CONNECTIONS ARE TO BE REMOVED AND GROUTED SMOOTH.
- GROUT BETWEEN GRADE RINGS. FOR EACH INLET BOX THAT IS LOCATED NEXT TO A CURB, THE CURB AND GUTTER CONTRACTOR IS RESPONSIBLE TO REMOVE ALL PROTRUDING, JAGGED OR SHARP CONCRETE EDGES AND TO GROUT BETWEEN BOTTOM OF INLET LID FRAME AND TOP OF CONCRETE BOX. GROUT TO CREATE A SMOOTH, BEVELED TRANSITION AT ALL EDGES IN CLEAN OUT AND INLET BOXES. GROUT AROUND ALL EDGES OF THE RESTRICTIVE ORIFICE PLATE.
- REMOVE SNAP TIES, NAILS, REBAR AND OTHER PROTRUSIONS FROM THE BOX OR PIPE INSIDE SURFACE, AS WELL AS ALL FORM WORK, PLASTIC AND CARDBOARD.
- SILT AND DEBRIS ARE TO BE CLEANED OUT OF ALL INLET BOXES, COMBO BOXES, JUNCTION BOXES, AND PIPE. THE BOXES AND PIPES ARE TO BE MAINTAINED IN A CLEAN CONDITION UNTIL AFTER THE FINAL BOND RELEASE INSPECTION.
- CLEAN OFF ALL MANHOLE LIDS AND INLET GRATES OF ASPHALT, CONCRETE, TAR OR OTHER ADHESIVES TO ALLOW ACCESS.

- WHERE A SUMP IS REQUIRED, THE SANDY CITY PUBLIC UTILITIES INSPECTOR SHALL BE CONTACTED PRIOR TO CONSTRUCTION TO PROVIDE AN OPPORTUNITY TO CHECK THE VOLUME OF GRAVEL AND GRAVEL GRADATION.
- SIGNS MUST BE POSTED NEAR EACH INLET BOX LOCATED IN A DRINKING WATER RECHARGE ZONE, WITH THE FOLLOWING WORDS "WARNING THIS IS A DRINKING WATER AQUIFER RECHARGE AREA. DISPOSAL OF ANY WASTE MATERIALS IN THE STORM WATER IS STRICTLY PROHIBITED."
- ALL INLET, COMBO AND JUNCTION BOXES SHALL BE PLACED ON 12-INCH (MIN.) COMPACTED STABILIZATION MATERIAL.
- A VIDEO OF ALL PIPES MUST BE COMPLETED BEFORE THE 80% OR 90% BOND RELEASE AND AGAIN BEFORE FINAL BOND RELEASE.
- A REPRESENTATIVE OF THE MANUFACTURER OR SUPPLIER SHALL BE ON SITE DURING INSTALLATION OF OIL/WATER SEPARATORS AND UNDERGROUND DETENTION/RETENTION SYSTEMS. THE MANUFACTURER OR SUPPLIER SHALL PROVIDE A LETTER STATING THAT THE SYSTEM WAS INSTALLED PER MANUFACTURER'S SPECIFICATIONS. IF IT IS UNKNOWN WHETHER A REPRESENTATIVE IS REQUIRED TO BE PRESENT DURING INSTALLATION, CONTACT THE SANDY CITY PUBLIC UTILITIES INSPECTOR.
- A LETTER FROM THE CONSULTING ENGINEER IS REQUIRED TO BE SUBMITTED TO SANDY CITY PUBLIC UTILITIES DEPARTMENT, PRIOR TO 90% BOND RELEASE, VERIFYING THAT THE VOLUME FOR RETENTION/DETENTION PONDS WAS INSTALLED PER THE APPROVED PLANS.

GENERAL NOTES

- ALL PUBLIC IMPROVEMENTS, WHICH ARE TO BE OWNED AND MAINTAINED BY SANDY CITY, SHALL BE CONSTRUCTED ACCORDING TO THE SANDY CITY STANDARD SPECIFICATIONS AND DETAILS FOR MUNICIPAL CONSTRUCTION (LATEST EDITION). THE SPECIFICATIONS CAN BE FOUND IN .PDF FORMAT ONLINE AT WWW.SANDY.UTAH.GOV (CLICK ON "DEPARTMENTS", THEN "PUBLIC WORKS", THEN "STANDARD SPECIFICATIONS").

ROW AT 90th Retention Pond Calculations

Design Criteria:
 Recurrence Interval: 10 years
 Discharge Rate: 0.00 cfs
 Discharge Allowed: 0.00 cfs
 Runoff Coefficient "C": 0.61
 Drainage Area: 1.02 acres

| Retention Duration | Retention Volume (cu-ft) | Peak Runoff (cfs) | I (in./hr) | T _c (min.) |
|--------------------|--------------------------|-------------------|------------|-----------------------|
| 15-min | 1254 | 1 | 2.24 | 15 |
| 30-min | 1590 | 1 | 1.42 | 30 |
| 1-hr | 2038 | 1 | 0.91 | 60 |
| 2-hr | 2419 | 0 | 0.54 | 120 |
| 3-hr | 2621 | 0 | 0.39 | 180 |
| 6-hr | 3360 | 0 | 0.25 | 360 |
| 12-hr | 4032 | 0 | 0.15 | 720 |
| 24-hr | 4928 | 0 | 0.09 | 1440 |

Retention Volume Required (cubic-feet): 2,621 cf
0.06 ac-ft

DRAINAGE SYSTEM SUMMARY

- THIS SITE WILL UTILIZE A RETENTION POND (LID) SIZED FOR THE 10 YEAR, 3 HOUR STORM.
- ROADWAY RUNOFF AND REAR DOWNSPOUTS WILL BE CONVEYED TO THE RETENTION VIA THE DOUBLE CURB INLET AT THE WEST END OF 8980 SOUTH.
- FRONT DOWNSPOUTS AND LANDSCAPE AREAS WILL BE CONVEYED TO THE RETENTION POND VIA A LAND DRAIN SYSTEM.
- POND WILL ACT AS BMP TO TREAT STORMWATER.

* THE 100 YR 72 HR STORM CONVEYANCE ROUTE TO WILL BE OVERLAND TO 290 EAST.

Post-Developed 10 Year

Design Criteria:
 Recurrence Interval: 10 years

| Peak Runoff | Drainage Basin | Upstream Drainage | Peak Runoff (cfs) | C | I (in./hr) | T _c (min.) | A (acres) |
|------------------|----------------|-------------------|-------------------|------|------------|-----------------------|-----------|
| Primary Drainage | Basin | Drainage | (cfs) | | | | |
| Sub Basin 1 | 0.48 | 0.4 | 0.61 | 1.39 | 31 | 0.48 | |
| Sub Basin 2 | 0.13 | 0.1 | 0.61 | 1.45 | 29 | 0.13 | |
| Sub Basin 3 | 0.30 | 0.4 | 0.61 | 2.24 | 15 | 0.30 | |

Based on NOAA Standard IDF Table

Subbasin Time of Concentration

| Drainage Basin | Area (acres) | T _c (min.) | Max. Dist. (ft) | Rep. Slope (ft/ft) | T _c (min.) | v (fps) | Equiv. Dist. (ft) |
|----------------|--------------|-----------------------|-----------------|--------------------|-----------------------|---------|-------------------|
| Sub Basin 1 | 0.48 | 30.9 | 330 | 0.010 | 0.5 | 6.0 | 170 |
| Sub Basin 2 | 0.13 | 28.6 | 325 | 0.013 | 0.9 | 6.0 | 314 |
| Sub Basin 3 | 0.30 | 4.1 | 26 | 0.050 | 0.9 | 6.0 | 308 |

Definitions

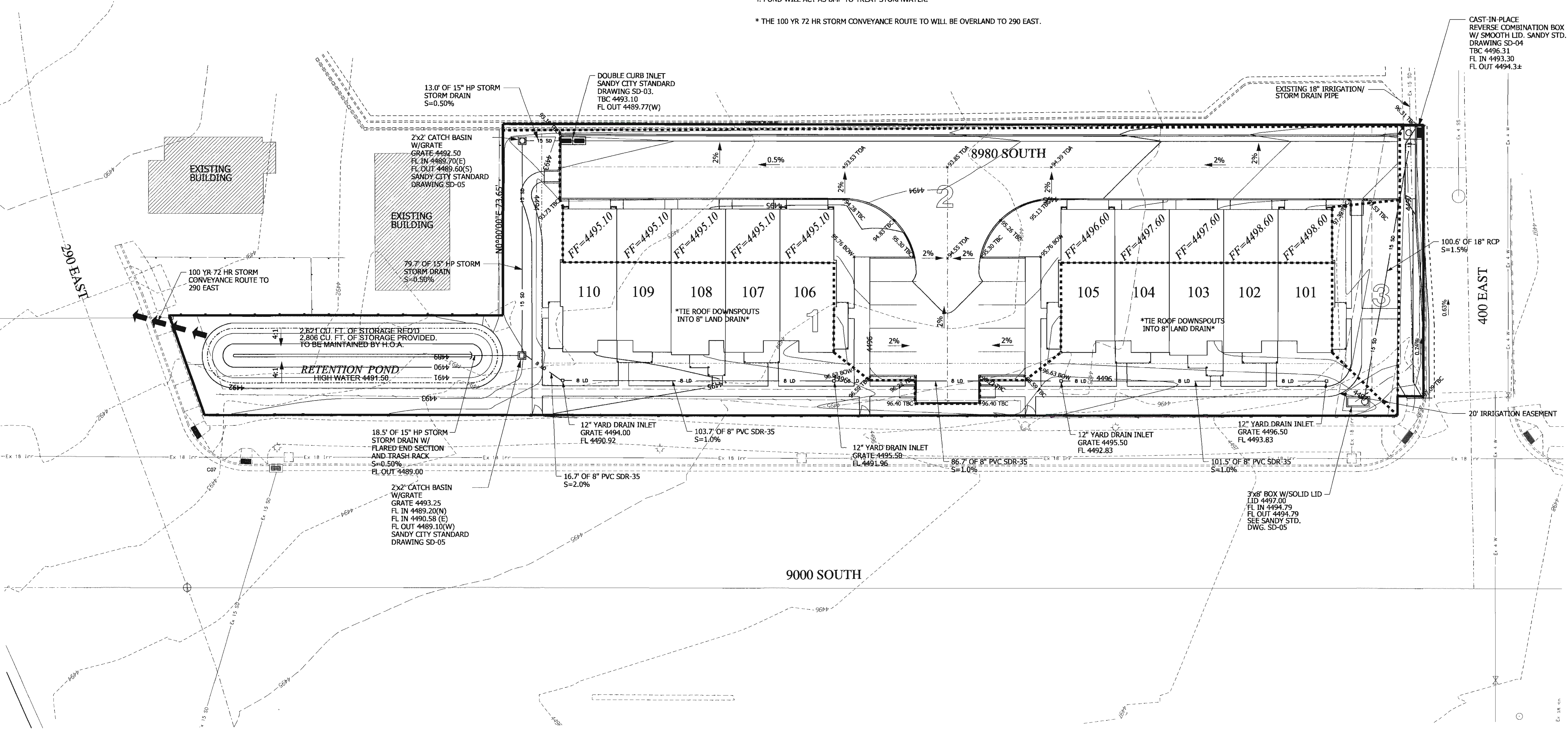
- T_c - time of concentration for overland flow (minutes)
- L - maximum hydraulic length of overland flow (ft)
- S - representative slope
- T_s - travel time for street segment of flow (minutes)
- L - maximum hydraulic length of street flow (ft)
- v - average velocity for street flow segment (fps)

Determination of "C" Coefficient

| Description | Percentage of Total Area | Area (sq ft) | Runoff Coefficient |
|-----------------|--------------------------|--------------|--------------------|
| Building | 26% | 11,328.00 | 0.85 |
| Driveway | 35% | 325 | 0.9 |
| Roadway | 4% | 10,312.00 | 0.85 |
| Landscape | 35% | 17,098.00 | 0.25 |
| Weighted Total: | 100% | 41,993.00 | 0.61 |



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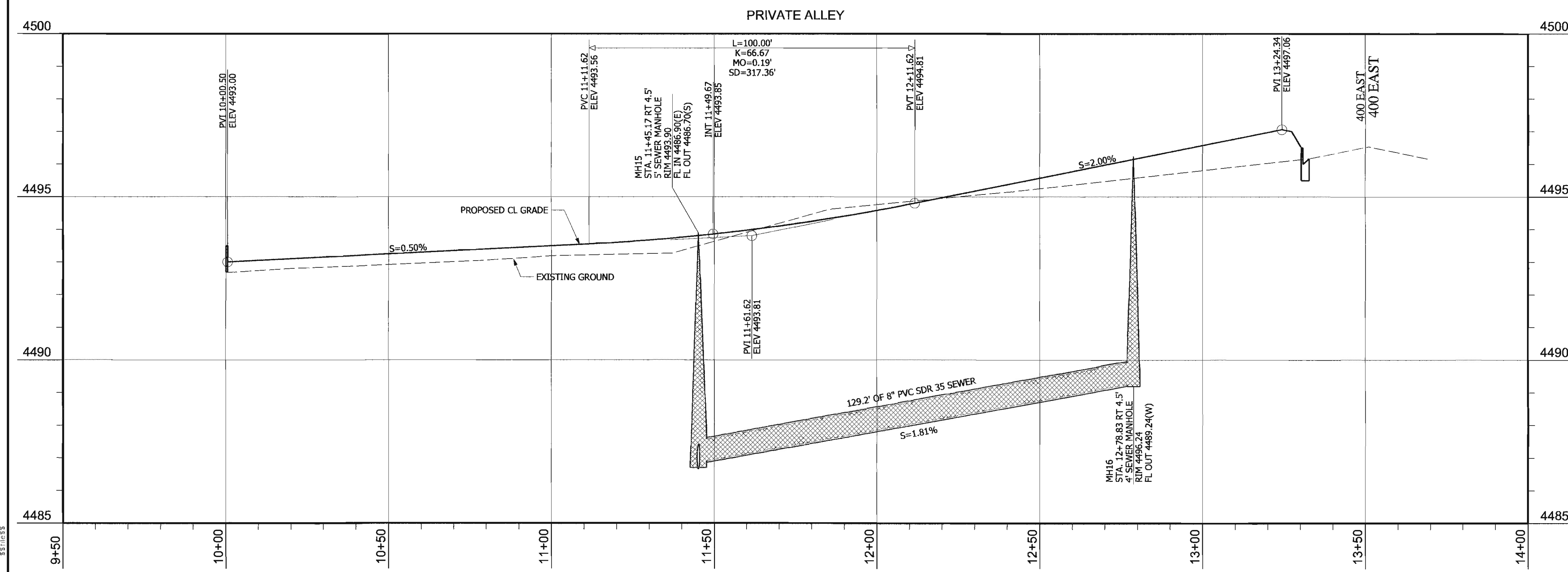
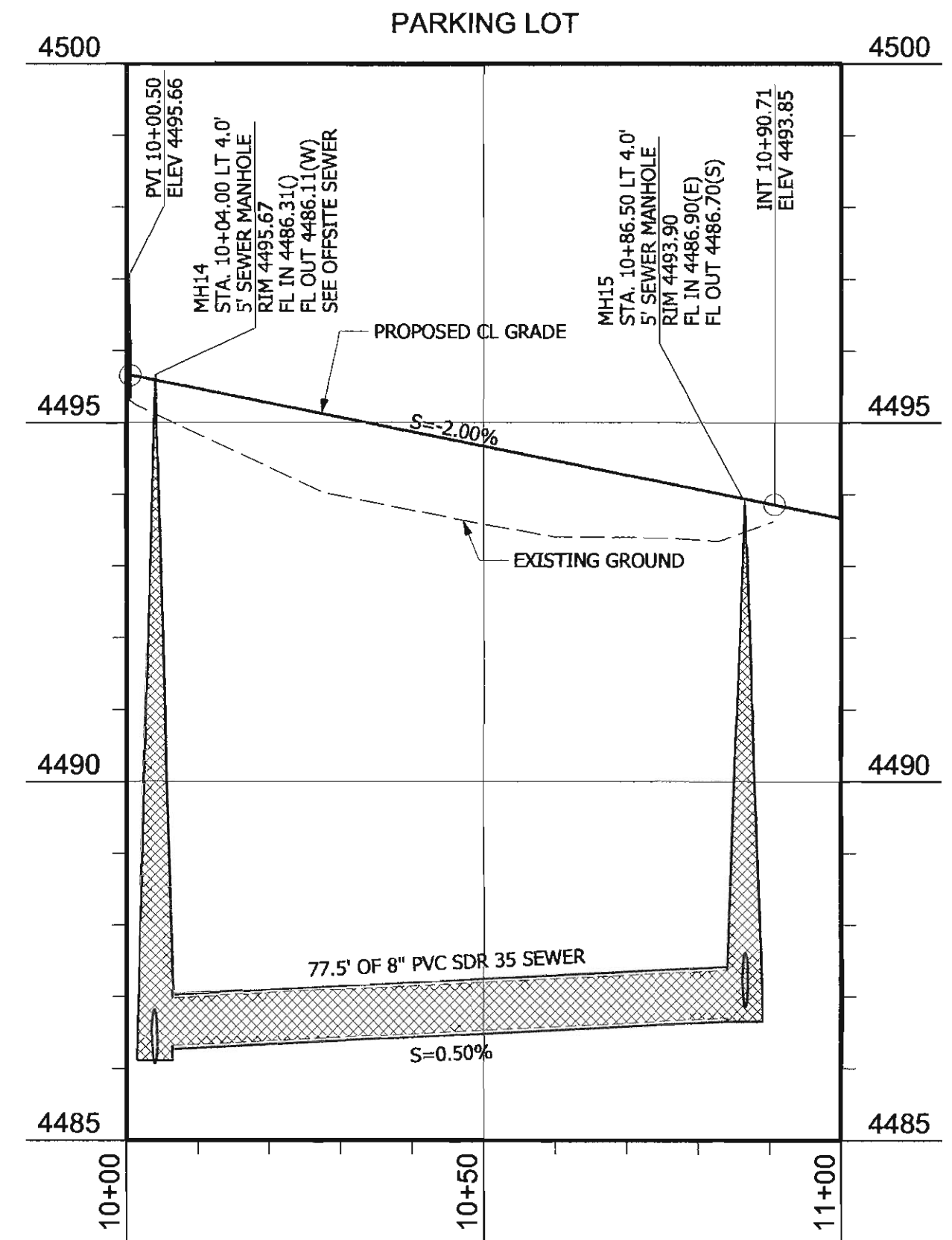
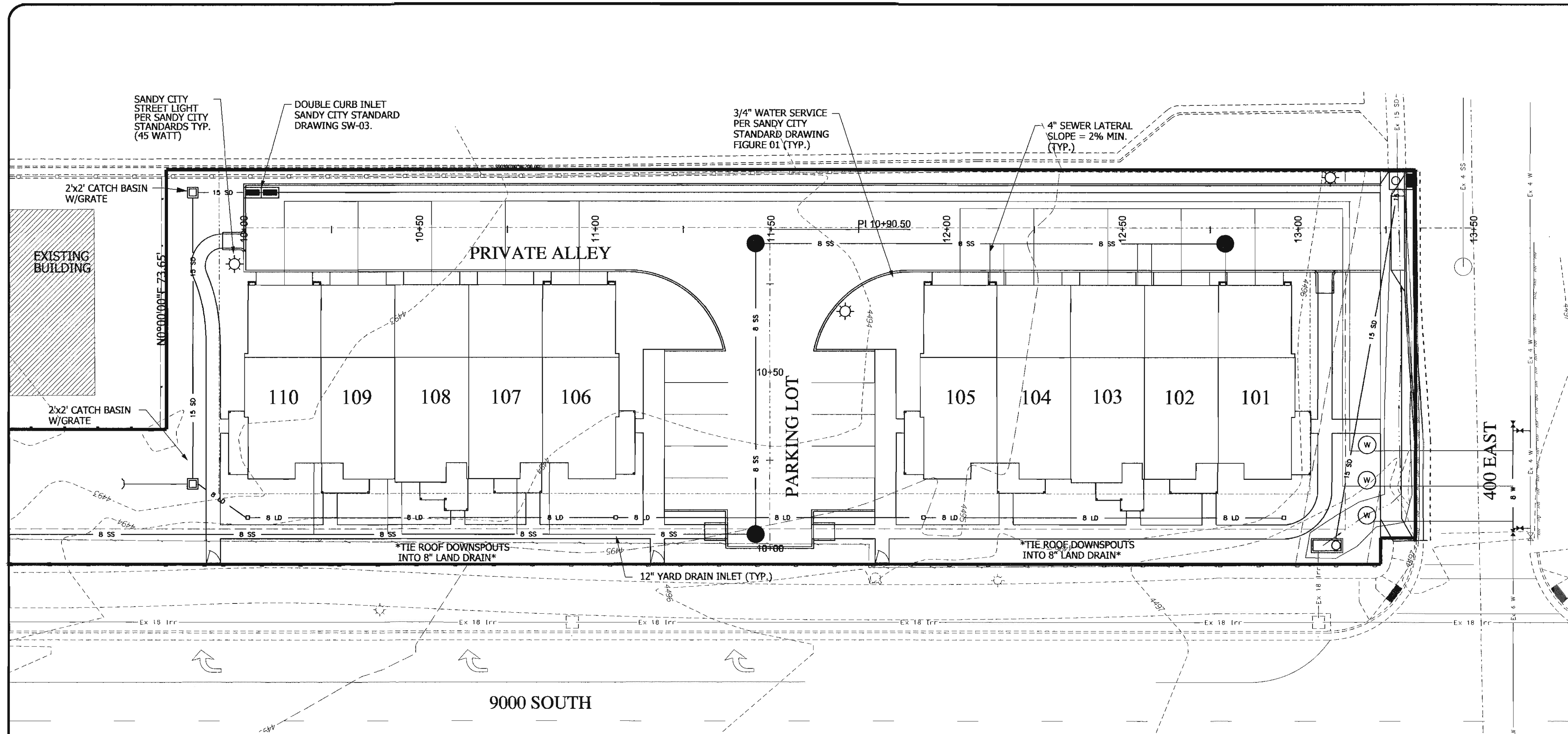
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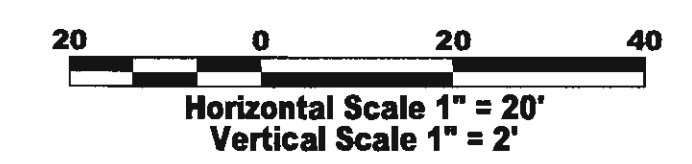
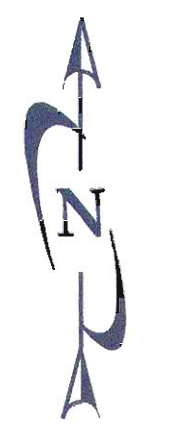
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 2. BUILDER/OWNER SHALL OBTAIN AN EXCAVATION PERMIT FROM THE UTAH DEPARTMENT OF TRANSPORTATION REGION TWO PRIOR TO DOING ANY WORK WITHIN THE UDOT RIGHT OF WAY.
 3. PROVIDE SLOPE AWAY FROM BUILDINGS THAT COMPLIES WITH THE REQUIREMENTS IF THE INTERNATIONAL BUILDING CODE (2% MINIMUM/12% MAXIMUM ON HARD SURFACES; 5% MINIMUM /2:1 MAXIMUM IN LANDSCAPED AREAS - FOR MINIMUM 10 FEET IN ANY CASE).



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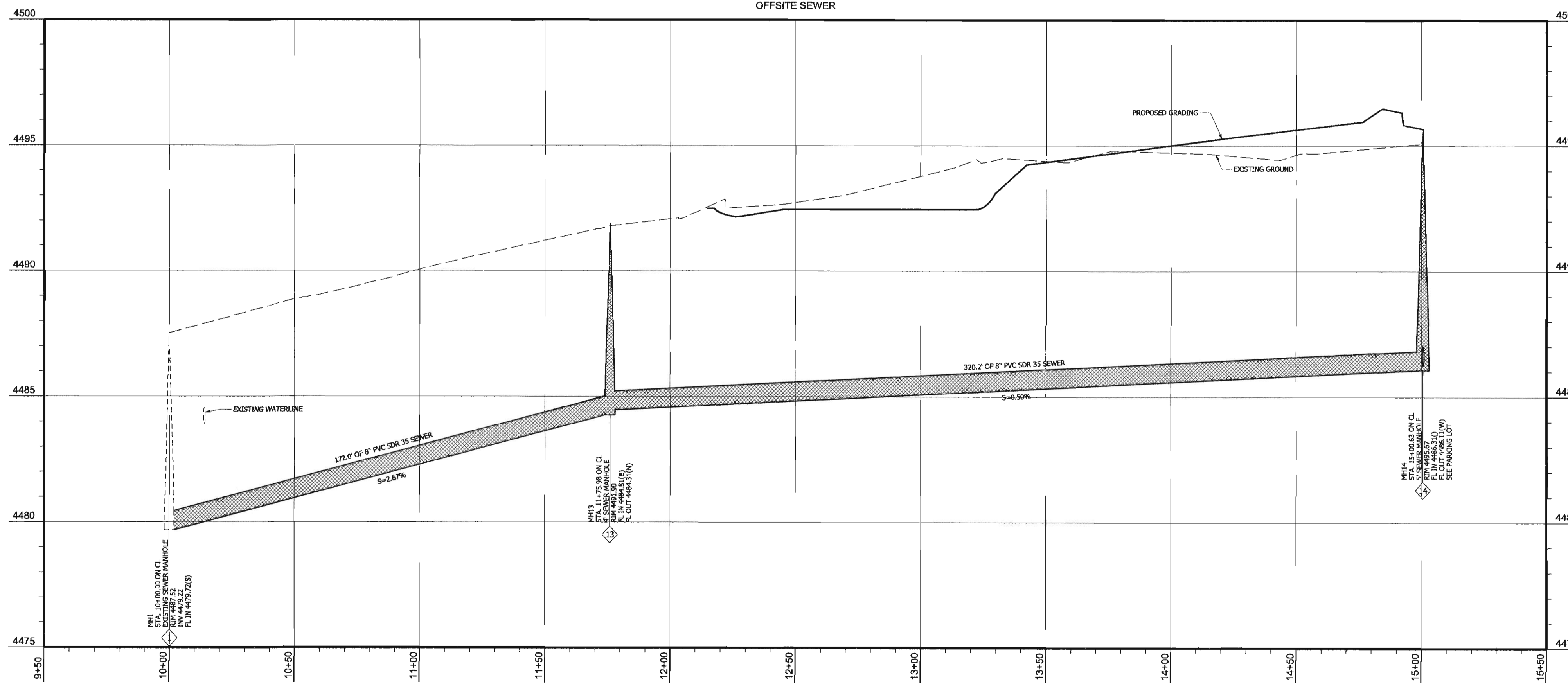
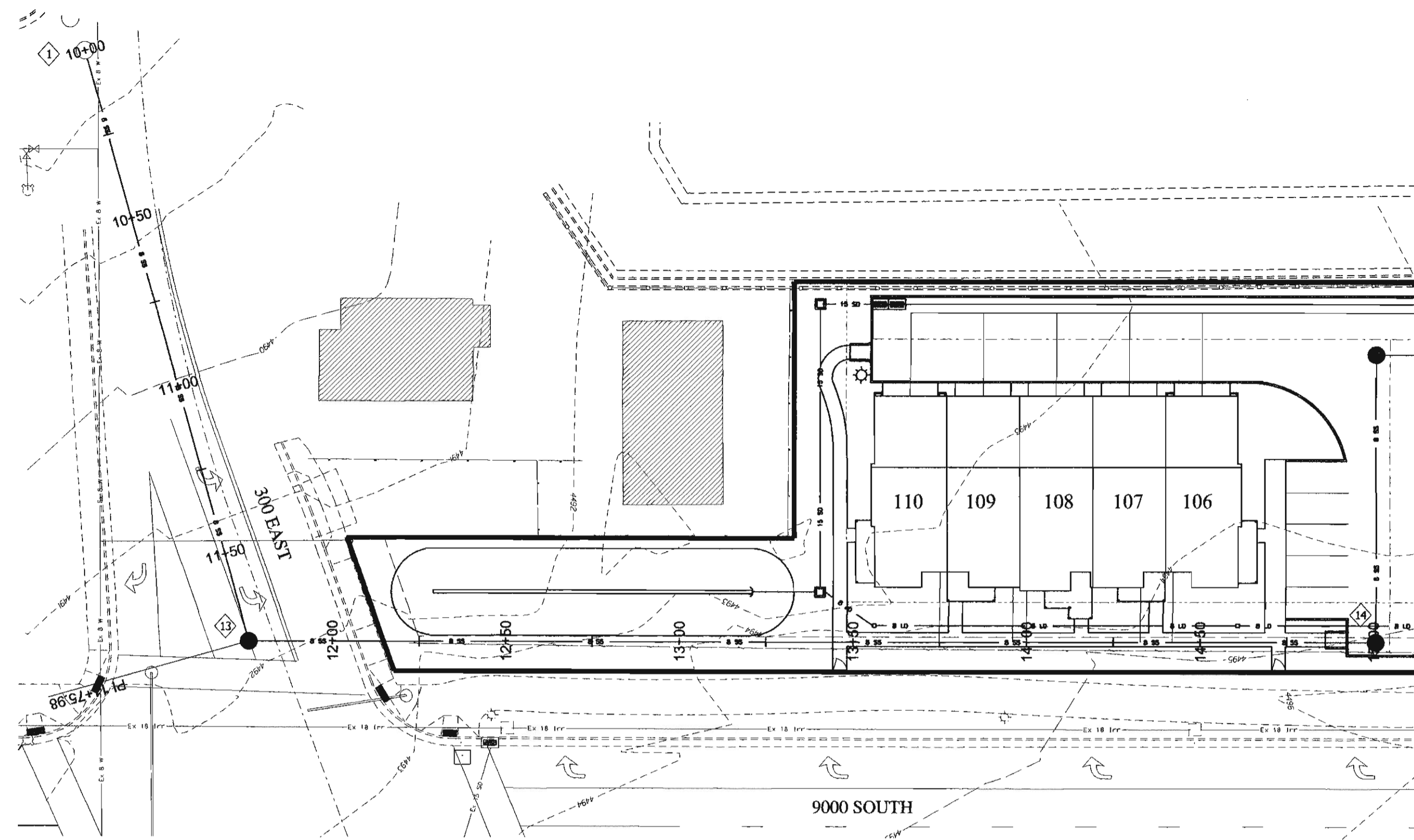
ROW AT 90th
PLAN & PROFILE - PRIVATE ALLEY
CONSTRUCTION DRAWINGS



SHEET
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Horizontal Scale 1" = 20'
Vertical Scale 1" = 2'

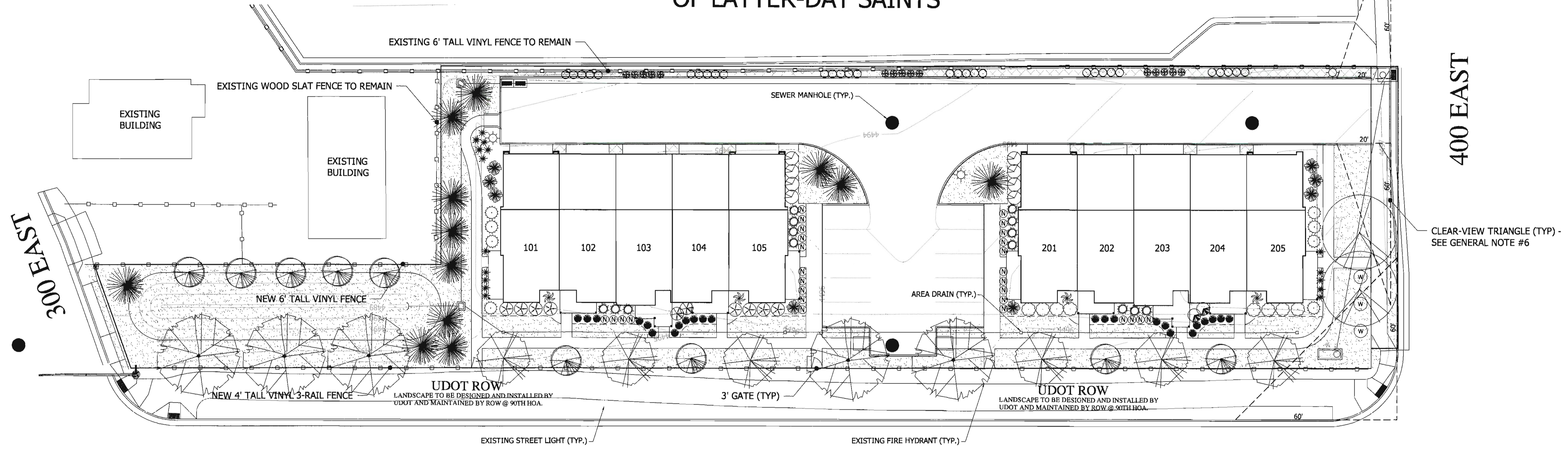
ROW AT 90th
PLAN & PROFILE - OFFSITE SEWER
CONSTRUCTION DRAWINGS

PROTERRA GROUP
1654 Reunion Ave. Suite 10A, South Jordan Utah 84095
Phone: (801) 253-0248 Fax: (801) 253-6139
www.proterragroup.com

PROFESSIONAL ENGINEER
No. 295571
DAVID A. REDDISH
12/4/18
STATE OF UTAH

SHEET
PP2

CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS



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PLANTING LEGEND

| SYMBOL | QUANTITY | COMMON NAME | BOTANICAL NAME | SIZE | NOTES |
|--------|----------|------------------------------|---|----------------|-------|
| | 12 | WEeping WHITE SPRUCE | <i>Picea glauca</i> 'Pendula' | 6' Tall min. | |
| | 5 | COMMON HACKBERRY | <i>Celtis occidentalis</i> | 2" Caliper | |
| | 2 | EMERALD QUEEN MAPLE | <i>Acer platanoides</i> 'Emerald Queen' | 2" Caliper | |
| | 6 | CANADA RED CHOKECHERRY | <i>Prunus virginiana</i> 'Canada Red' | 1 1/2" Caliper | |
| | 9 | RED BARRON CRAB APPLE | <i>Malus</i> 'Red Barron' | 1 1/2" Caliper | |
| | 8 | MEIDLAND SERIES ROSE - WHITE | <i>Rosa</i> 'Meidiland White' | 5 Gallon | |
| | 8 | MEIDLAND SERIES ROSE - RED | <i>Rosa</i> 'Meidiland Fire' | 5 Gallon | |
| | 4 | UPRIGHT SERVICEBERRY | <i>Amelanchier alnifolia</i> 'Obelisk' | 5 Gallon | |
| | 8 | FORSYTHIA | <i>Forsythia x</i> 'Northern Gold' | 5 Gallon | |
| | 8 | OLD GOLD JUNIPER | <i>Juniperus chinensis</i> 'Old Gold' | 5 Gallon | |
| | 2 | DWARF BURNING BUSH | <i>Euonymus alatus</i> 'Compacta' | 5 Gallon | |
| | 2 | DWARF KOREAN LILAC | <i>Syringa meyeri</i> 'Palibin' | 5 Gallon | |
| | 14 | MUGO PINE | <i>Pinus mugo</i> 'Mughus' | 5 Gallon | |
| | 8 | PURPLE SAND CHERRY | <i>Prunus x cistena</i> | 5 Gallon | |

| SYMBOL | QUANTITY | COMMON NAME | BOTANICAL NAME | SIZE | NOTES |
|--------|-----------|-----------------------------|---|----------|-------|
| | 28 | CATMINT | <i>Nepeta</i> 'Little Trudy' | 1 Gallon | |
| | 24 | KARL FOERSTER FEATHER GRASS | <i>Calamagrostis x acutiflora</i> 'Karl Foerster' | 1 Gallon | |
| | 16 | STELLA D'ORO DAYLILY | <i>Hemerocallis</i> 'Stella D' Oro' | 1 Gallon | |
| | 30 | GOLDEN ROCKET BARBERRY | <i>Berberis thunbergii</i> 'Golden Rocket' PP18626 | 1 Gallon | |
| | 15 | HELMOND PILLAR BARBERRY | <i>Berberis thunbergii</i> 'Helmond Pillar' | 1 Gallon | |
| | 12,025 SF | TURF-GRASS | Use "Blue Ribbon Seed Blend" from Granite Seed, "Drought Tolerant Sod/Seed" from Chanshare Farms, "Bobble Sod/Seed" from Biogress Sod Farms, or approved equal. | | |
| | 2,652 SF | SHREDDED BARK MULCH | 4" min depth dark brown shredded bark mulch to be placed in all shrub beds. | | |
| | 1,035 SF | ROCK MULCH | Staker Parsons All Seasons 1" rock mulch or approved equal. 3" min depth. | | |

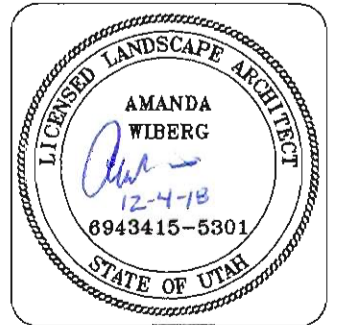
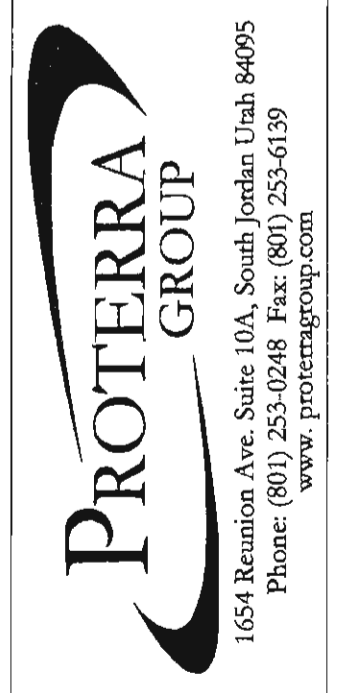
GENERAL NOTES

- ALL QUANTITIES ARE SHOWN AS AN AID ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR FOR ALL ACTUAL QUANTITY CALCULATIONS.
- PLANT COMMON NAMES ARE SHOWN AS AN AID ONLY. USE BOTANICAL NAME WHEN PURCHASING ALL PLANT MATERIAL.
- ALL LANDSCAPE ELEMENTS MUST BE INSTALLED PER SANDY CITY REQUIREMENTS.
- NO TREES SHALL BE PLANTED IN PUBLIC PARK STRIPS LESS THAN 8 FEET WIDE. CENTERLINE OF TREES SHALL BE PLANTED MINIMUM OF 4 FEET WAY FROM BACK OF CURB AND EITHER SIDE OF SIDEWALK.
- 2H:1V MAXIMUM SLOPE IN LANDSCAPED AREAS.
- CLEAR-VIEW TRIANGLE - NO OBSTACLES OVER 3' HIGH, AS MEASURED FROM TOP BACK OF CURB, ARE ALLOWED WITHIN TRIANGLE TYP.

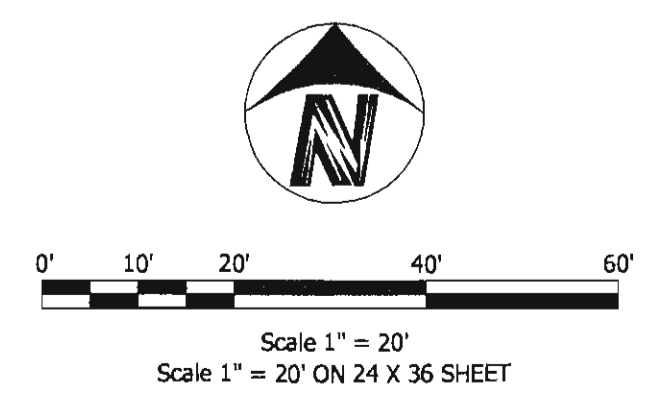
IRRIGATION/LANDSCAPE NOTES

- Mulch: After completion of all planting, all irrigated non-turf areas shall be covered with a minimum layer of four (4) inches of mulch to retain water, inhibit weed growth and moderate soil temperature. Non-porous material shall not be placed under the mulch. 4-inch mulch in all irrigated non-turf areas. If rock mulch, minimum is 3'-inch.
- Landscape Water Meter: A water meter and backflow prevention assembly that are in compliance with state code shall be installed for landscape irrigation systems, and the landscape water meter and backflow prevention assembly shall be separate from the water meter and backflow prevention assembly installed for indoor uses. The size of the meter shall be determined based on irrigation demand.
- Pressure Regulation: A pressure regulating valve shall be installed and maintained by the consumer if the static service pressure exceeds 80 pounds per square inch (psi). The pressure-regulating valve shall be located between the landscape water meter and the first point of water use, or first point of division in the pipe, and shall be set at the manufacturer's recommended pressure for sprinklers.
- Automatic controller: All irrigation systems shall include an electric automatic controller with multiple program and multiple repeat cycle capabilities and a flexible calendar program. All controllers shall be equipped with an automatic Rain Shutoff Device.
- On slopes exceeding 30%, the irrigation system shall consist of Drip Emitters, Bubblers, or sprinklers with a maximum Precipitation Rate of 0.85 inches per hour and adjusted sprinkler cycle to eliminate runoff.
- Each valve shall irrigate a landscape with similar site, slope and soil conditions and plant materials with similar watering needs. Turf and non-turf areas shall be irrigated on separate valves.
- Drip Emitters or a Bubbler shall be provided for each tree where practicable. Bubblers shall not exceed 1.5 gallons per minute per device. Bubblers for trees shall be on separate valve unless specifically exempted by Sandy City Public Utilities due to the limited number of trees on the project site.
- Sprinklers shall have matched Precipitation Rate with each control valve circuit.
- Check valves shall be required where elevation differences will cause low-head drainage. Pressure compensating valves and sprinklers shall be required where a significant variation in water pressure will occur within the irrigation system due to elevation differences.
- Drip irrigation lines shall be placed underground or otherwise permanently covered, except for Drip emitters and where approved as a temporary installation. Filters and end flush valves shall be provided as necessary.
- Irrigation zones with overhead spray or stream sprinklers shall be designed to operate between 6:00 p.m. and 10:00 a.m. to reduce water loss from wind and evaporation. This would exclude drip or bubbler zones.
- Program valves for multiple repeat cycles where necessary to reduce runoff, particularly slopes and soils with slow infiltration rates.
- Following construction and prior to release of the secondary bond guarantee posted for the project, a Water Use Efficiency Review will be conducted by a Landscape Irrigation Auditor. The auditor shall be independent of the Contractor, Consulting Engineer, and Developer/Project Owner. The water performance audit will verify that the irrigation system complies with the minimum standards required by Sandy City ordinance. The minimum efficiency required for the irrigation system is 60% for distribution efficiency for all fixed spray systems and 70% distribution efficiency for all rotor systems. The auditor shall furnish a certificate to the City, designer, installer and Developer/Project Owner certifying compliance with the minimum distribution requirements. Compliance with this provision is required before the City will release the bond for this project.
- Plants which require different amounts of water shall be irrigated by separate valves. If one valve is used for a given area, only planters with similar water use shall be used in that area. Lawn areas and planters shall be irrigated by separate valves.
- A separate backflow prevention device shall be installed for the irrigation system.
- A rain sensing overriding device shall be utilized so that the irrigation system will automatically turn off in the event of rain.
- The irrigation system shall be designed to prevent overspray and water run-off onto adjacent-property, non-irrigated areas, walks, roadways or structures.
- An automatic irrigation system using pop-up sprinkler heads shall be required for all new landscapes. Low flow sprinkler heads shall be used wherever possible.
- No irrigation of walkways or drive.
- Water audit is required prior to bond being released. Suggest the audit be done within 60 days of installing irrigation and landscape.

ROW @ 90TH SOUTH
LANDSCAPE PLAN
CONSTRUCTION DRAWINGS

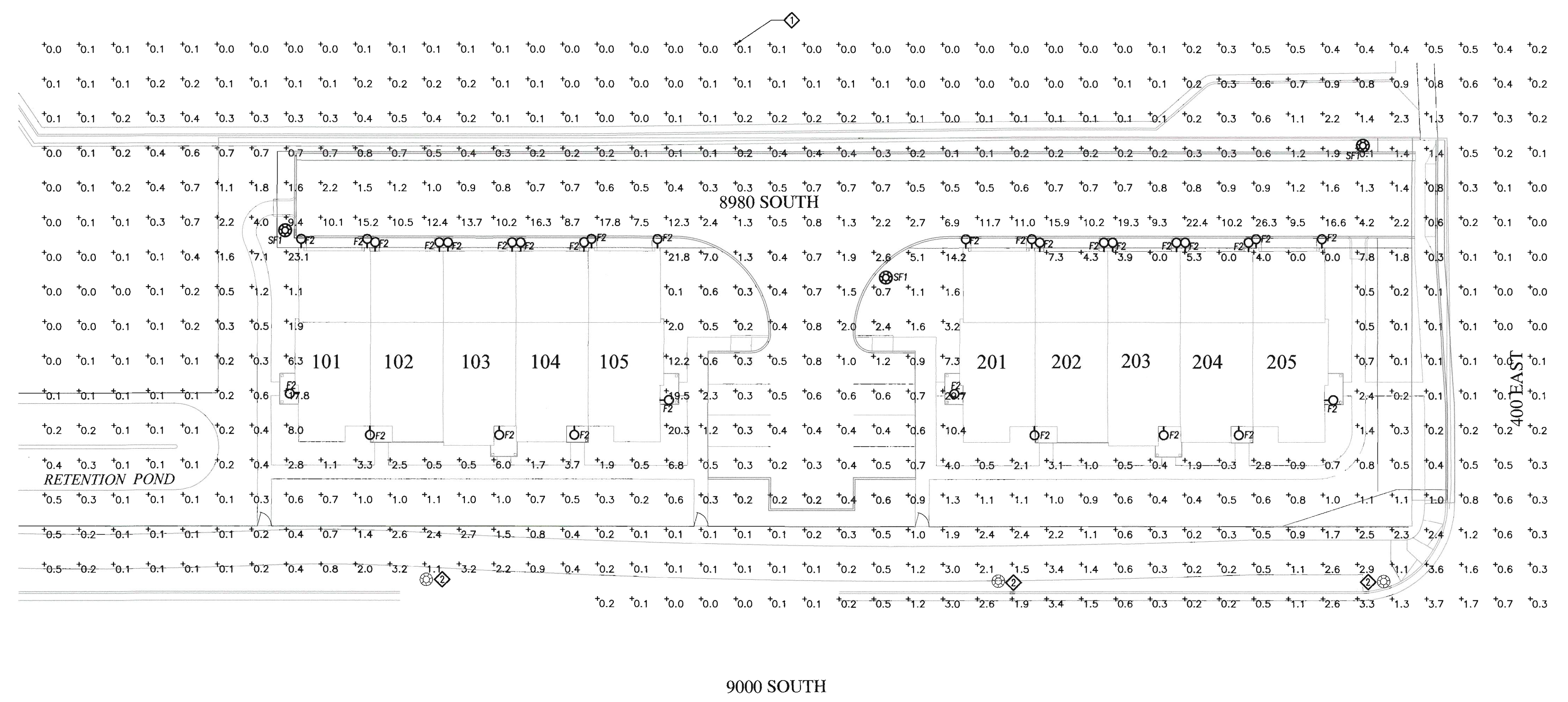


SHEET
LS1



ELECTRICAL KEYED NOTES:
 ◆ ALL VALUES ARE GIVEN IN FOOT CANDLES.
 ◆ EXISTING STREET LIGHT FIXTURES SHOWN FOR REFERENCE ONLY.

| SITE LIGHTING FIXTURE SCHEDULE | | | | | | | | | | | | |
|--------------------------------|--------------|---------------------------|-------|-------|-------|----------|------|-----------|--------------|---------|--|------------------------------|
| FIXT # | FIXTURE | | | LAMPS | | | | POLE | | REMARKS | | |
| | MANUFACTURER | CATALOG # | VOLTS | #POLE | WATTS | MOUNTING | TYPE | QTY/FIXT. | MANUFACTURER | | HEIGHT | |
| SF1 | HOLOPHANE | PUC12 P20 40K AS CMC L3 B | 120 | 1 | 103 | POST | - | - | HOLOPHANE | 18 | TAPERED ALUMINUM POLE 0.125" WALL 1.5 MIL SEMI-GLOSS BLACK | PER SANDY CITY SPECIFICATION |
| F2 | ACUTY | 247CL 20LEDE70 XXX 4K R2 | 120 | - | 46 | WALL | - | - | - | - | - | - |



SITE PHOTOMETRIC PLAN
 SCALE: 1" = 20'-0"

THESE DOCUMENTS ARE INSTRUMENTS OF SERVICE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF UTAH. I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY, EXPRESS OR IMPLIED, FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY, EXPRESS OR IMPLIED, FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY, EXPRESS OR IMPLIED, FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN.

REVISIONS:

ROW AT 90
 400 E 9000 S
 SANDY UTAH

DRAWING TITLE:
 SITE PHOTOMETRIC PLAN

DRAWN BY: CLD
 CHECKED BY: RB

DATE PLOTTED:
 09/28/2018

PROJECT #:
 J18201.DD

E10