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APPENDIX G

ELECTRIC AND MAGNETIC FIELDS MANAGEMENT PLAN

POWER SANTA CLARA VALLEY PROJECT
ELECTRIC AND MAGNETIC FIELDS MANAGEMENT PLAN

1. PROJECT OVERVIEW

The Power Santa Clara Valley Project (Project) was approved by the California Independent System Operator (CAISO) to ensure the reliability of the CAISO-controlled grid. This would be accomplished through the construction of two new high-voltage direct current (HVDC) terminals, a new HVDC transmission line connecting the terminals, and two new alternating current (AC) transmission lines connecting the terminals to the existing electrical grid. The Project is being developed by LS Power Grid California, LLC (LSPGC), a regulated public utility in California, established to develop, own, and operate transmission projects.

Project Summary

The Project is located in the City of San José and unincorporated areas of Santa Clara County, California as shown in **Appendix 1**, *Project Map*. The Project includes the following key elements:

- Two new HVDC terminals including:
  - The new Skyline terminal adjacent to the existing Pacific Gas and Electric (PG&E) San Jose B substation; and
  - The new Grove terminal in the vicinity of the existing PG&E Metcalf substation;
- One approximately 100-foot overhead Skyline to San Jose B 115 kV alternating current (AC) station tie line connecting the new Skyline terminal to PG&E's San Jose B substation, shown as Segment A on **Appendix 1**;
- One approximately 13-mile Grove to Skyline 320 kilovolt (kV) direct current (DC) underground transmission line connecting the Skyline terminal to the Grove terminal, shown as Segment B on **Appendix 1**;
- One approximately 1.2-mile Metcalf to Grove 500 kV AC underground transmission line connecting the new Grove terminal to the existing PG&E Metcalf substation, shown as Segment C on **Appendix 1**.

Project Segments

In this Field Management Plan (FMP), the Project is divided into three transmission line segments which represent each of the typical right-of-way cross sections and the two HVDC terminals (i.e., substations). The segments are depicted in **Appendix 1** and described below.

Skyline Terminal

The proposed Skyline terminal site is located in the City of San José and consists of approximately 4.5 acre walled terminal within an approximately 10.6 acre property. The proposed Skyline terminal is located on the corner of Santa Teresa Street and Ryland Street, immediately south of the existing San Jose B substation. Surrounding land uses consist of the existing San Jose B substation to the north, (SR-87) to the east, commercial uses to the south, and the Guadalupe River Park and Trail to the west.

Grove Terminal

The proposed Grove terminal site consists of approximately 13.7 acre property located along Monterey Road about 0.2 mile west of U.S. Route 101 and approximately 0.65 mile south of the existing Metcalf substation. Approximately 3.2 acres of the property is located within the City of San José and the remaining approximately 10.5 acres is located within unincorporated Santa Clara County. Surrounding land uses consist of office, industrial, and residential uses to the northwest; open space, Coyote Creek Parkway, and U.S. Route 101 to the east; a private lot consisting of disturbed land from a past orchard and a residential structure to the south; and Monterey Road and agricultural uses to the west.

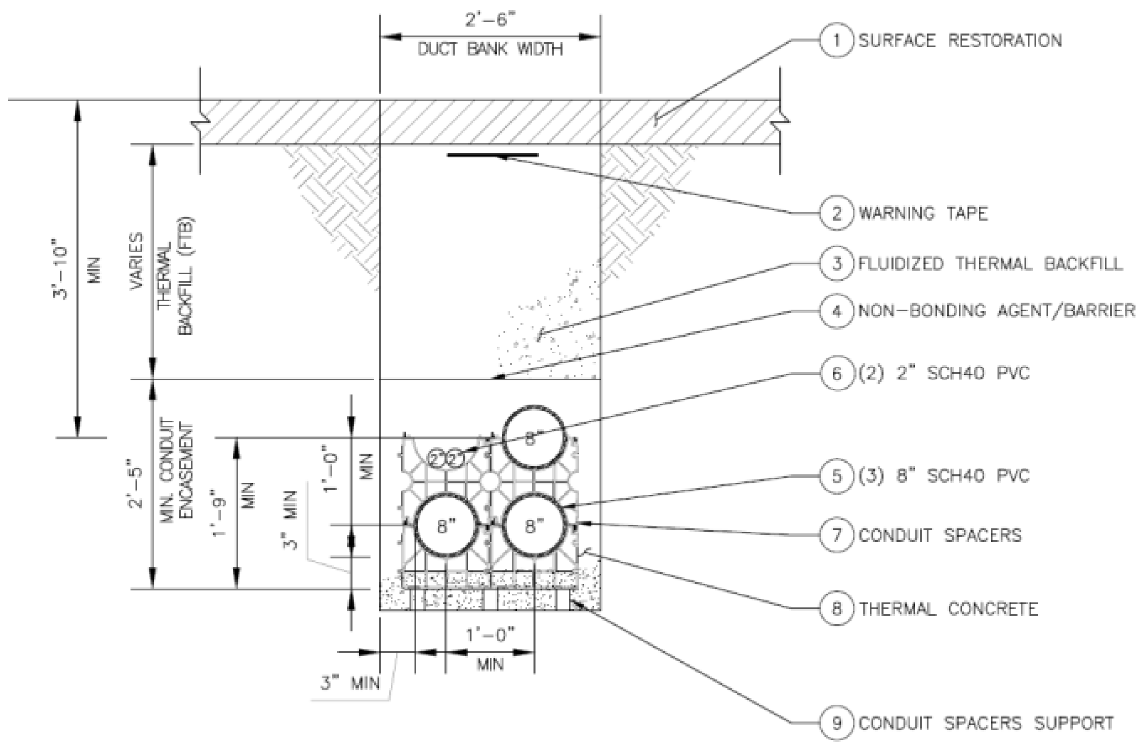
Segment A

The proposed Skyline to San Jose B 115 kV station tie line (Segment A) is located in the City of San José and would consist of an approximately 100 foot overhead station tie line from the proposed Skyline terminal to the adjacent PG&E San Jose B substation to the north. Segment A would be located wholly within the proposed Skyline terminal and the San José B substation. Surrounding land uses consist of the existing San Jose B substation to the north, SR-87 to the east, the proposed Skyline terminal to the south, and Guadalupe River Park and Trail to the west.

Segment B

The proposed Grove to Skyline 320 kV DC transmission line (Segment B) is located within both the City of San José and unincorporated Santa Clara County and is approximately 13 miles in length. The Grove to Skyline 320 kV DC transmission line is proposed to be located underground, almost exclusively within existing public roadways. The proposed alignment of this DC transmission line would connect the proposed Skyline terminal to the proposed Grove terminal predominantly along the following roads: Bassett Street, Little Market Street, Market Street, First Street, and Monterey Road. Surrounding land uses consist of residential, commercial, industrial (light and heavy), transit, open space, developed parks, convention center, and agriculture. There are no hospitals identified within 87.5 feet[1] of Segment B. One licensed daycare facility, Momina Child Day Care, has been identified within 87.5 feet of the Proposed Project work area along Segment B. Three schools, Downtown College Prep, Washington United Youth Center and the San Jose Evergreen Community College District office, have been identified within 87.5 feet of the Proposed Project work area along Segment B. LSPGC will endeavor to the extent practicable for the final design location of the Segment B transmission line to be maximized from this licensed daycare facility and the schools. **Figure 1,** *Segment B Typical Cross Section***,** depicts the proposed typical cross section for Segment B's underground 320k kV DC transmission line. Additionally, Segment B is a DC transmission line which produces a static magnetic field different from the more typical dynamic magnetic fields produced by AC transmission lines.

Figure 1 – Segment B Typical Cross Section

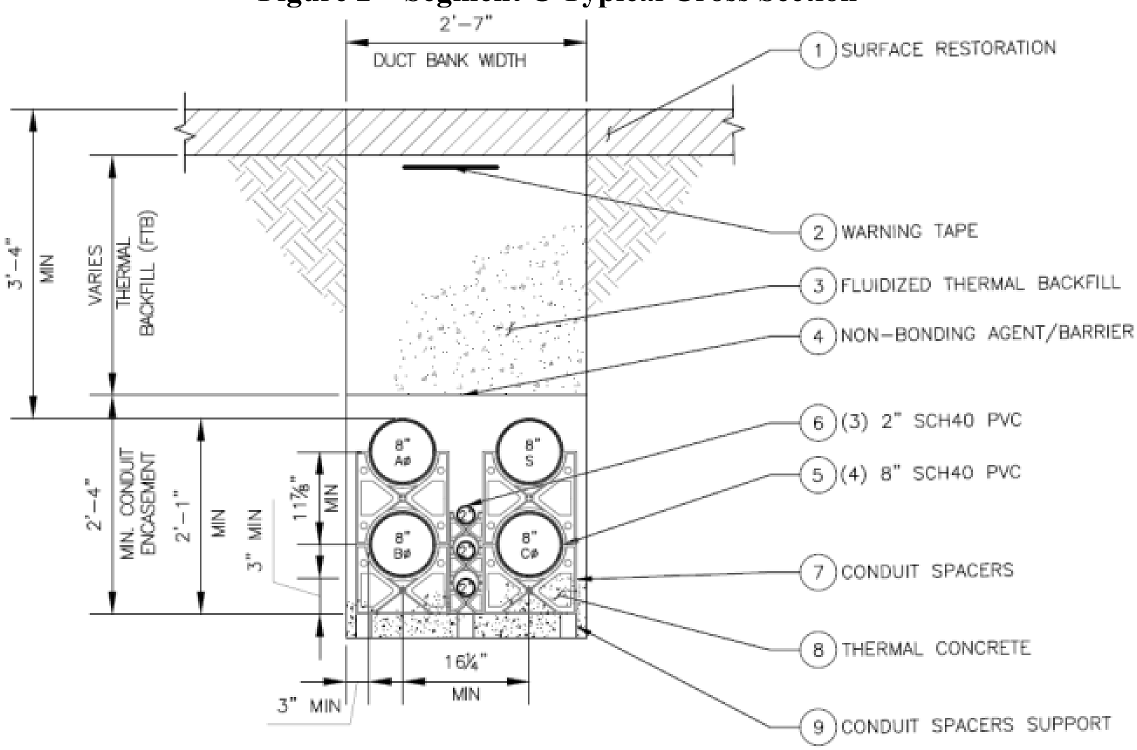


[1] 87.5 feet is the setback for schools recommended in the *California Department of Education's (CDE) Criteria for Siting New Schools Adjacent to Electric Power Lines Rated 50 kV and Above* for 500-550 kV lines.

Segment C

The proposed Metcalf to Grove 500 kV AC transmission line (Segment C) is located within both the City of San José and unincorporated Santa Clara County on land owned by Santa Clara County, PG&E and Santa Clara Valley Water District. The Metcalf to Grove 500 kV AC transmission line is proposed to be located underground, with approximately one mile of the proposed 1.2-mile Metcalf to Grove 500 kV underground transmission line located within Coyote Ranch Road, approximately 0.2 mile would traverse undeveloped and natural areas on Santa Clara County land, and 300 feet would be on the proposed Grove terminal site. Surrounding land is zoned for agriculture and open space and land uses currently consist predominately of agriculture, open space, and regional parkland with minimal industrial/commercial and residential uses near the Grove terminal. The closest residence to Segment C is over 300 feet from the proposed route. There are no schools, hospitals, or licensed daycare facilities within 87.5 feet of this route. **Figure 2,** *Segment C Typical Cross Section*, depicts the proposed typical cross section for Segment C's underground 500 kV AC transmission line.

Figure 2 – Segment C Typical Cross Section



2. MAGNETIC FIELD MANAGEMENT DESIGN GUIDELINES

The Project requires permitting under General Order 131-D; therefore this detailed FMP has been developed. LSPGC will apply guidelines to the design of electrical facilities of the Project in accordance with CPUC Decisions 93-11-013 and 06-01-042. The applicable design guidelines mandated by the CPUC are:

A) No-cost and low-cost magnetic field reduction measures will be considered on new and upgraded projects.

B) Low-cost measures, in aggregate, will:

   1. Cost less than 4% of the total project cost.

   2. Achieve a 15% or greater magnetic field reduction at the utility ROW.

C) The Commission [CPUC] has exclusive jurisdiction over issues related to electric and magnetic fields (EMF) exposure from regulated utility facilities.

D) Parties generally agree on the following group prioritization for land use categories in determining how mitigation costs will be applied:

   1. Schools, hospitals, and licensed day care
   2. Residential
   3. Commercial/industrial
   4. Recreational
   5. Agricultural
   6. Undeveloped land

E) Low-cost EMF mitigation is not necessary in agricultural and undeveloped land except for permanently occupied residences, schools or hospitals located on these lands.

F) Although equal mitigation for an entire class is a desirable goal, the Commission will not limit the spending of EMF mitigation to zero on the basis that not all class members can benefit.

G) The following magnetic field reduction methods may be considered for new and upgraded electrical facilities:

   1. Increasing the distance from electrical facilities by:
      - Increasing structure height or trench depth.
      - Locating power lines closer to the centerline of the corridor.
   2. Reducing conductor (phase) spacing.
   3. Phasing circuits to reduce magnetic fields.

H) Non-routine mitigation measures, or other mitigation measures that are based on numeric values of EMF exposure, will not be considered.

I) The guidelines "should not compromise safety, reliability, or the requirements of [CPUC] General Orders (GO) 95 and 128."

J) Without exception, design and construction of electric power system facilities must comply with all applicable federal and state regulations, applicable safety codes, and each electric utility's construction standards.

The CPUC has asserted that there is no significant scientifically verifiable relationship between EMF exposure and negative health consequences and that state and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate.

Consistent with the CPUC's EMF policy, this FMP deals solely with magnetic fields. Minimizing the magnetic field strength is only one of many factors to consider in planning and designing a transmission system. EMF reduction must be balanced with many other design considerations such as safety, environmental concerns, reliability, insulation and electrical clearance requirements, aesthetics, cost, operations, and maintenance.

3. TRANSMISSION LINE FIELD MANAGEMENT PLAN

In accordance with CPUC decision 06-01-042 2-dimensional magnetic field only EMF modeling is used to compare differences between alternative EMF mitigation measures. Magnetic field levels for underground segments were calculated in CYMCAP[2] at 3 feet above the ground at various distances from the centerline of the underground transmission duct bank. To determine the effectiveness of the potential mitigation measures, calculated values for each potential mitigation measure were compared to the level calculated without the potential mitigation measure. Feasibility and incremental cost were then considered for each potential mitigation measure. Potential mitigation measures are summarized in **Table 1** below.

[2] CYMCAP Version 8.2 rev. 3 developed by Cyme International (c) 1990-2023

Table 1 – Reduction Measures Adopted or Rejected

<table>
<tr><th>Project Segment</th><th>Location (Street, Area)</th><th>Adjacent Land Use</th><th>Reduction Measure Considered</th><th>Measure Adopted? (Yes/No)</th><th>Estimated Cost to Adopt</th></tr>
<tr><td></td><td></td><td>Per §2-D</td><td>Per § 2-G</td><td></td><td></td></tr>
<tr><td rowspan="2">A</td><td>Skyline terminal & San Jose B substation</td><td>Commercial, Industrial</td><td>All Reduction Measures</td><td>No</td><td>N/A</td></tr>
<tr><td colspan="5">This line segment is located entirely within substations that prohibit public access. Any magnetic field reduction measure would have negligible effects on the magnetic field strength outside of the substations' walls.</td></tr>
<tr><td rowspan="2">B & C</td><td>Primarily Public Streets and County Parkland</td><td>Schools, Day Cares, Residential, Commercial, Recreational, Agricultural, Undeveloped</td><td>Underground Installation</td><td>Yes</td><td>>4%</td></tr>
<tr><td colspan="5">The CPUC has previously stated in D.06-01-042 that, "placing a transmission line underground should normally provide sufficient mitigation". The incremental cost for placing these segments underground is significantly greater than the 4% threshold for low-cost mitigation measures. However, the suburban and urban nature of the adjacent land uses led to the decision in this case to propose all of Segments B and C to be underground, thereby providing significant magnetic field level mitigation compared to a similar overhead transmission line.</td></tr>
<tr><td rowspan="2">B</td><td>Primarily Public Streets</td><td>Schools, Day Cares, Residential, Commercial, Recreational, Agricultural, Undeveloped</td><td>Reduce Conductor Spacing</td><td>N/A</td><td>N/A</td></tr>
<tr><td colspan="5">As a DC line, Segment B is not phased like a conventional AC line and therefore, reducing the conductor spacing does not materially reduce magnetic field values.</td></tr>
<tr><td>C</td><td>Primarily Public Streets, and County Parkland</td><td>Recreational, Agricultural, Undeveloped</td><td>Reduce Conductor Spacing</td><td>Yes</td><td>No-cost</td></tr>
</table>

	The spacing between conductors inside the duct bank has been minimized to optimize for EMF levels as well as duct bank size efficiency. Further spacing reduction is not practical due to mutual heating, which would limit the cable capacity to below the CAISO requirements.				
B	Primarily Public Streets	Schools, Day Cares, Residential, Commercial, Recreational, Agricultural, Undeveloped	Increase Trench Depth	No	>4%
	The proposed minimum trench depth is 3 feet to the top of the duct bank. Increasing trench depth for Segment B was rejected due to the incremental transmission line construction cost. To achieve a 15% reduction at the utility ROW would necessitate an increase in trench depth of at least 1.5 feet. This increase in trench depth is estimated to increase Segment B transmission line construction costs by approximately 13%. Trenching to a greater depth would also extend construction time and increase construction-related traffic and disruption to local neighborhoods. Further, because of the crowded utility environment below city streets, the duct bank may be up to approximately ten feet below the road surface in limited areas to avoid existing utilities. This will have a secondary benefit of decreasing magnetic field strength at the surface in these areas.				
C	Primarily Public Streets, and County Parkland	Recreational, Agricultural, Undeveloped	Increase Trench Depth	No	>4%
	The proposed minimum trench depths is 3 feet to the top of the duct bank. Increasing trench depth for Segment C was rejected as the California EMF Design Guidelines for Electrical Facilities do not consider recreational land use to be a high priority land use class for low-cost mitigation measures. Furthermore, to achieve a 15% reduction at the utility ROW would necessitate an increase in trench depth of at least 9 inches. This increase in trench depth is estimated to increase transmission line construction costs by approximately 7%. Trenching for greater depth would also extend construction duration and increase construction-related traffic disruptions.				
B, & C	Primarily Public Streets and County Parkland	Schools, Day Cares, Residential, Commercial, Recreational, Agricultural, Undeveloped	Locate transmission line closer to the center of the right of way where possible	Yes	No-cost

	Segments B and C of transmission line will be located close to the center of the right of way when possible. Because of the crowded utility environment under city streets, especially along Segment B, the duct bank may need to be closer to the edge of the right of way to avoid conflicts with or substantial relocations of existing utilities.				
A, B, & C	Primarily Public Streets and County Parkland	Schools, Day Cares, Residential, Commercial, Recreational, Undeveloped	Phase circuits to reduce magnetic fields	No	No-cost
	The 320 kV Segment B does not have conventional AC phasing as it would be an HVDC circuit. Segment A and Segment C consist of only a single circuit each, meaning that there are no phase configurations that would reduce field strength through partial cancellation.				

Magnetic Field Reduction Measures Considered

Segment A

Segment A would be located wholly within the proposed Skyline terminal and the San José B substation which prohibit public access. While Segment A is considered a transmission line since it connects LSPGC's and PG&E's adjacent substations, the connection is equivalent to a typical strain bus connection in a substation owned by a single utility. Therefore, any mitigation measures would be identified in the substation FMP section for the Skyline terminal.

Notwithstanding this, LSPGC evaluated the following no-cost and low-cost mitigation measures to reduce magnetic field strength:

Increasing Structure Height

Increasing the structure height would have negligible effects on the magnetic field strength outside of the substations' walls. Increasing structure heights would not be a no-cost option.

Phasing Circuits to Reduce Magnetic Fields

Segment A is a single circuit transmission line. Therefore, phasing circuits to reduce magnetic fields is not an effective reduction measure.

Segment B

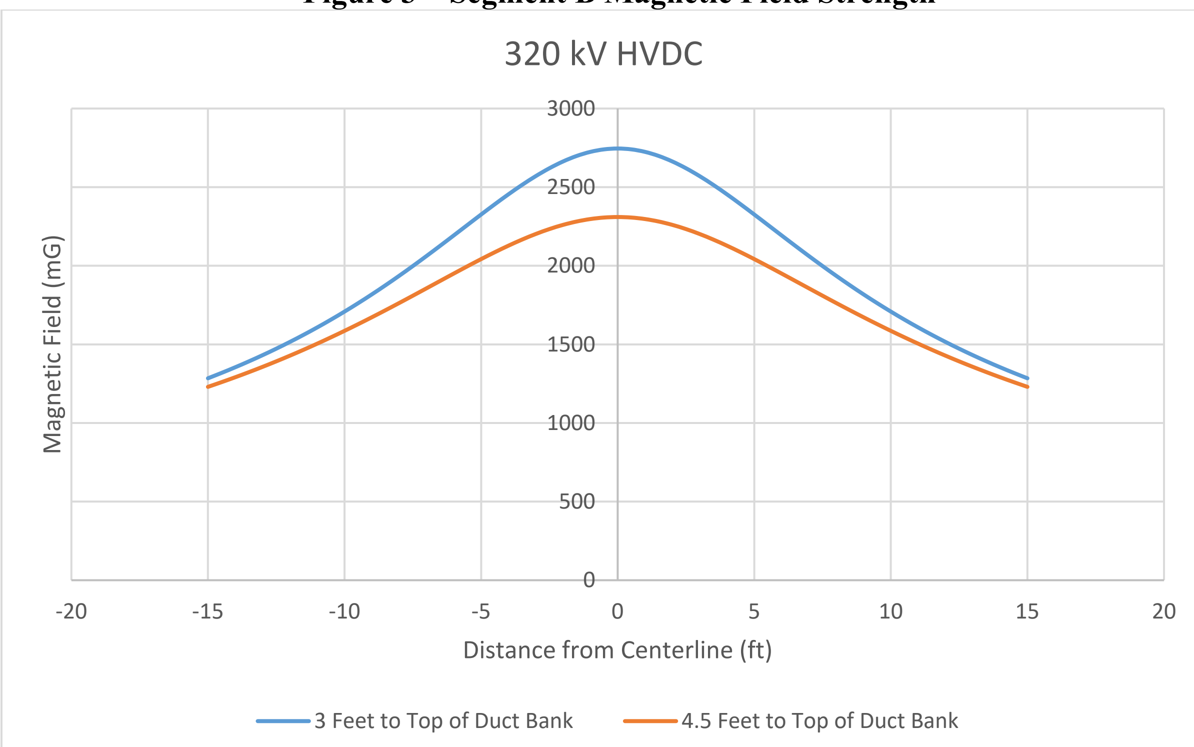
Segment B would be located underground, almost exclusively within existing public roadways. The CPUC has previously stated in D.06-01-042 that, "placing a transmission line underground should normally provide sufficient mitigation"; The incremental cost for placing this segment underground is significantly greater than the 4% threshold for low-cost mitigation measures. However, the suburban and urban nature of the adjacent land uses led to the decision in this case to propose all of Segment B to be underground, thereby providing significant magnetic field level mitigation compared to a similar overhead transmission line.

Notwithstanding this, LSPGC evaluated the following no-cost and low-cost mitigation measures to further reduce magnetic field strength:

Increasing Trench Depth

The standard minimum trench depth for the Power Santa Clara Valley project is 3 feet below expected post construction grade. Increasing trench depth was considered as a potential mitigation measure for Segment B. **Figure 3,** *Segment B Magnetic Field Strength* provides the magnetic field strength values for Segment B at varying distances from the duct bank centerline for a receptor 3 feet above ground level.

Figure 3 – Segment B Magnetic Field Strength[3]



The minimum trench depth increase required to decrease the magnetic field level by 15% for Segment B is 18 inches (1.5 feet). This increase in trench depth is estimated to increase the Grove to Skyline 320 kV DC transmission line construction costs approximately 13%. Additionally, Segment B is located almost entirely within city and county streets where any magnetic field exposure would be temporary. Trenching to a greater depth would also extend construction time and could increase construction-related traffic and disruption to local neighborhoods. For these

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[3] See Appendix 1 for the tabular data used to produce this figure

reasons, LSPGC does not propose increasing trench depth within Segment B as a low-cost measure for reducing magnetic fields.

However, in street sections with a large number of existing utilities, limited portions of the Segment B trench is expected to be installed lower than the minimum 3 feet to meet utility clearance requirements which would further reduce magnetic fields.

Locating Power Lines Closer to the Centerline of the Corridor

The Segment B transmission line will be located close to the center of the right of way when possible. Because of the crowded utility environment under city streets, especially along Segment B, the duct bank may need to be closer to the edge of the right of way to avoid conflicts with or substantial relocations of existing utilities. LSPGC will locate transmission lines close to the centerline of the ROW to the extent practicable while also considering other design constraints. LSPGC will work with the relevant parties to ensure each segment is centered in the existing roadway to the extent practicable while maintaining required existing utility clearances.

Reducing Conductor (Phase) Spacing

As a DC line, Segment B is not phased like a conventional AC line and therefore, reducing the conductor spacing does not materially reduce magnetic field values. Thus, this measure is not applicable to Segment B.

Phasing Circuits to Reduce Magnetic Fields

As a DC line, Segment B is not phased like a conventional AC line. Additionally, Segment B is a single circuit transmission line. Therefore, phasing circuits to reduce magnetic fields is not an effective reduction measure.

Segment C

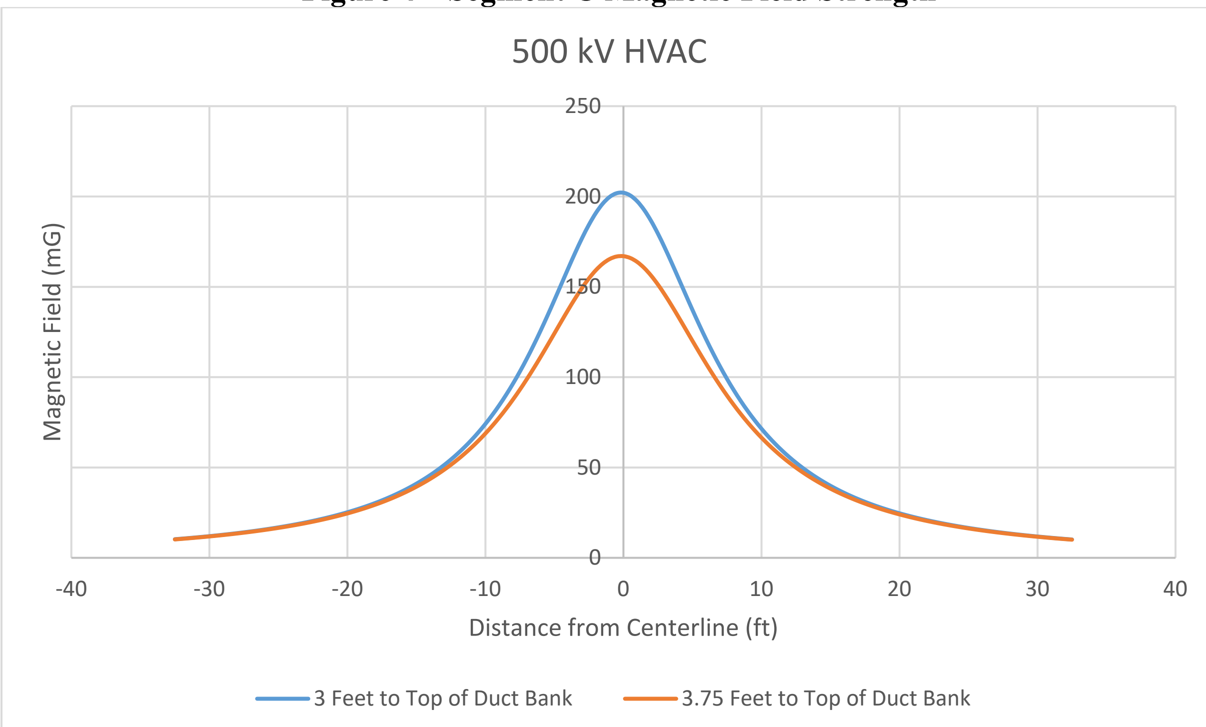
Segment C would be located underground, almost exclusively within existing public roadways. The CPUC has previously stated in D.06-01-042 that, "placing a transmission line underground should normally provide sufficient mitigation"; The incremental cost for placing this segment underground is significantly greater than the 4% threshold for low-cost mitigation measures. However, the suburban and recreational nature of the nearby land uses led to the decision in this case to propose all of Segment C to be underground, thereby providing significant magnetic field level mitigation compared to a similar overhead transmission line. Additionally, Segment C is located entirely within a county street and agricultural and recreational land use areas, where any magnetic field exposure would be temporary. The California EMF Design Guidelines for Electrical Facilities do not consider agricultural or recreational land use to be a high priority land use class for low-cost mitigation measures. Furthermore, the closest residence to Segment C is approximately 350 feet from the centerline.

Notwithstanding this, LS Power evaluated the following no-cost and low-cost mitigation measures to reduce magnetic field strength:

Increasing Trench Depth

The standard minimum trench depth for the Power Santa Clara Valley project is 3 feet below expected post construction grade. Increasing trench depth was considered as a potential mitigation measure for Segment C. **Figure 4,** *Segment C Magnetic Field Strength* provides the magnetic field strength values for Segment B at varying distances from the duct bank centerline for a receptor 3 feet above ground level.

Figure 4 – Segment C Magnetic Field Strength[4]



The minimum trench depth increase required to decrease the magnetic field level by 15% for Segment C is 9 inches (0.75 feet). This increase in trench depth is estimated to increase the Metcalf to Grove 500 kV AC transmission line construction costs approximately 7%. Trenching to a greater depth would extend construction time and could increase construction-related traffic disruptions. For these reasons, LSPGC does not propose increasing trench depth within Segment C as a low-cost measure for reducing magnetic fields.

Locating Power Lines Closer to the Centerline of the Corridor

The Segment C transmission line will be located close to the center of the right of way when possible. Because of the crowded utility environment under streets, the duct bank may need to be closer to the edge of the right of way to avoid conflicts with or substantial relocations of existing utilities. LSPGC will locate transmission lines close to the centerline of the ROW to the extent

[4] See Appendix 1 for the tabular data used to produce this figure

practicable while also considering other design constraints. LSPGC will work with the relevant parties to ensure each segment is centered in the existing roadway to the extent practicable while maintaining required existing utility clearances.

Reducing Conductor (Phase) Spacing

The spacing between conductors inside the duct bank for Segment C has been minimized to optimize for EMF levels as well as duct bank size efficiency. Further spacing reduction is not practical due to mutual heating, which limits the cable capacity to below the CAISO requirements. Therefore, LSPGC has already optimized conductor phase spacing for Segment C.

Phasing Circuits to Reduce Magnetic Fields

Segment C is single circuit transmission line. Therefore, phasing circuits to reduce magnetic fields is not an effective reduction measure.

4. SUBSTATION FIELD MANAGEMENT PLAN

Generally, magnetic field values along the substation perimeter are low compared to the substation interior because of the distance to the energized equipment. Normally, the highest values of magnetic fields around the perimeter of a substation are caused by transmission lines entering and leaving the substation, and not by substation equipment. The transmission lines entering and leaving the substations are included in the scope of the Transmission Line FMP presented in section 3. Magnetic field reduction measures considered for the Grove and Skyline terminals as part of the Project are summarized in the tables below.

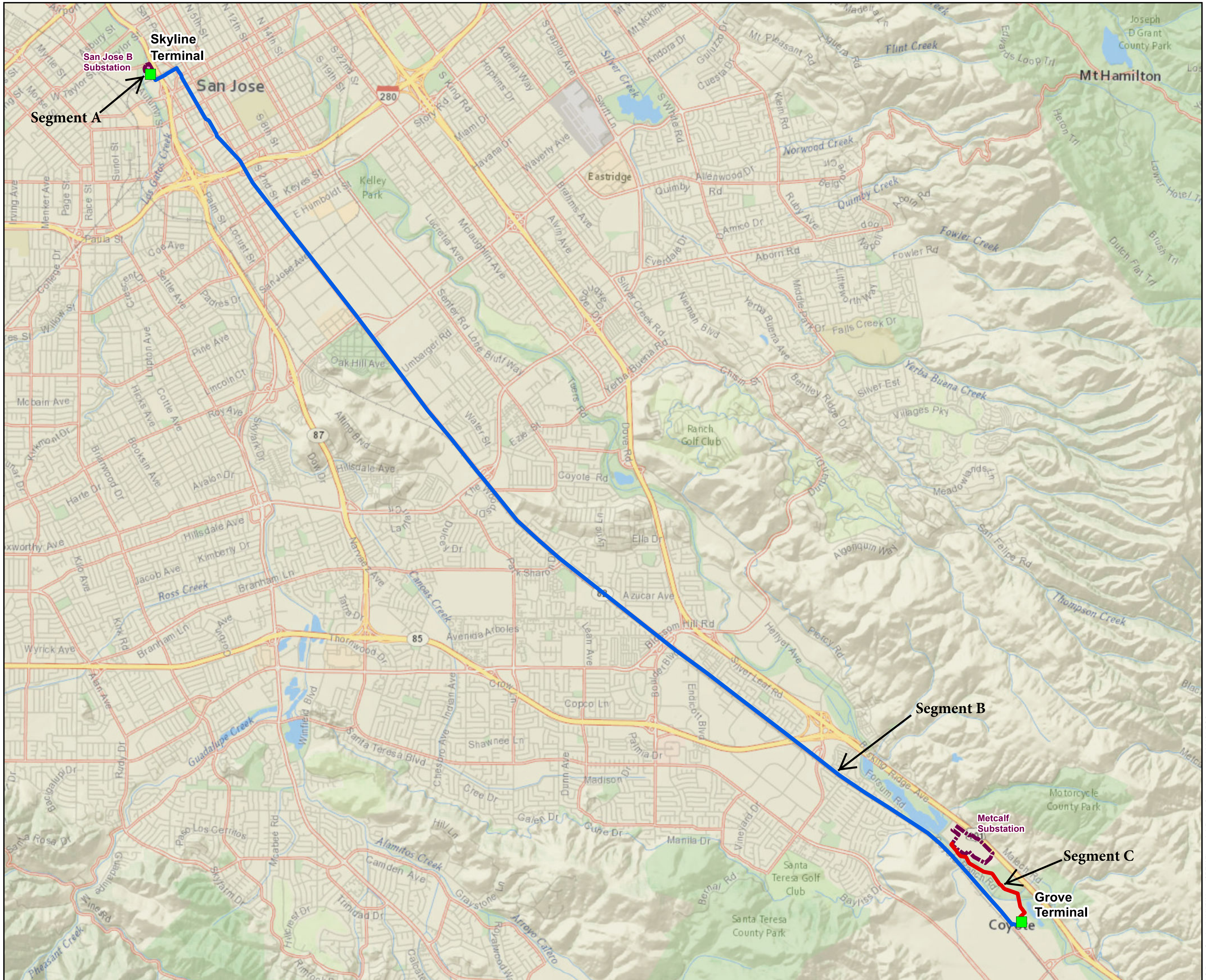
Table 2 – Grove Terminal – Substation Checklist

No.	No-Cost and Low-Cost Magnetic Field Reduction Measures Evaluated for the Grove Terminal	Measures Adopted? (Yes/No)	Reason(s) if not Adopted
1	Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines.	Yes	
2	For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical.	Yes	
3	Locate new substations close to existing power lines to the extent practical.	Yes*	*LSPGC consulted with PG&E, concerning the potential for siting the HVDC terminal on PG&E property adjacent to the existing Metcalf substation which would require PG&E relocate certain existing facilities at this location. PG&E determined that it would not be able to accommodate LSPGC's request given the existing and planned public utility-related uses for the property. As such, the proposed Grove terminal is located close to existing power lines to the extent practical.
4	Increase the substation property boundary to the extent practical.	Yes	

Table 3 – Skyline Terminal - Substation Checklist

No.	No-Cost and Low-Cost Magnetic Field Reduction Measures Evaluated for the Skyline Terminal	Measures Adopted? (Yes/No)	Reason(s) if not Adopted
1	Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines.	Yes	
2	For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical.	Yes	
3	Locate new substations close to existing power lines to the extent practical.	Yes	
4	Increase the substation property boundary to the extent practical.	Yes	

Appendix 1 – Project Route Map



POWER SANTA CLARA VALLEY PROJECT

Appendix 1 - Project Route Map

City of San José, Santa Clara Co., CA

LEGEND

Proposed Project Components

- HVDC Terminal Site
- Segment B - 320 kV DC Transmission Line
- Segment C - 500 kV AC Transmission Line

0 1 2 3
Miles

Sources: LSPGC 2023; Sources: Esri, USGS, NOAA, National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Appendix 2 – Magnetic Field Value Tables from Figures 3 and 4

Table 4 – Segment B - 320 kV HVDC Underground Transmission Line

	Magnetic Field Level 3 Feet Above Ground (milligauss)		
Distance from Centerline (feet)	3 Feet to Top of Duct Bank	4.5 Feet to Top of Duct Bank	Percent Reduction
-15	1,284	1,230	4.2%
-14.5	1,319	1,260	4.5%
-14	1,355	1,291	4.7%
-13.5	1,392	1,323	4.9%
-13	1,431	1,357	5.2%
-12.5	1,473	1,392	5.5%
-12	1,516	1,428	5.8%
-11.5	1,561	1,466	6.1%
-11	1,608	1,505	6.4%
-10.5	1,657	1,545	6.8%
-10	1,709	1,586	7.2%
-9.5	1,762	1,629	7.6%
-9	1,818	1,672	8.0%
-8.5	1,876	1,717	8.5%
-8	1,936	1,763	8.9%
-7.5	1,998	1,810	9.4%
-7	2,062	1,856	10.0%
-6.5	2,127	1,904	10.5%
-6	2,193	1,951	11.1%
-5.5	2,260	1,997	11.6%
-5	2,326	2,042	12.2%
-4.5	2,391	2,086	12.8%
-4	2,454	2,128	13.3%
-3.5	2,514	2,167	13.8%
-3	2,570	2,202	14.3%
-2.5	2,620	2,233	14.8%
-2	2,663	2,260	15.1%
-1.5	2,698	2,281	15.5%
-1	2,724	2,297	15.7%
-0.5	2,740	2,307	15.8%
0	2,746	2,310	15.9%
0.5	2,740	2,307	15.8%
1	2,724	2,297	15.7%
1.5	2,698	2,281	15.5%
2	2,663	2,260	15.1%

	Magnetic Field Level 3 Feet Above Ground (milligauss)		
Distance from Centerline (feet)	3 Feet to Top of Duct Bank	4.5 Feet to Top of Duct Bank	Percent Reduction
2.5	2,620	2,233	14.8%
3	2,570	2,202	14.3%
3.5	2,514	2,167	13.8%
4	2,454	2,128	13.3%
4.5	2,391	2,086	12.8%
5	2,326	2,042	12.2%
5.5	2,260	1,997	11.6%
6	2,193	1,951	11.1%
6.5	2,127	1,904	10.5%
7	2,062	1,856	10.0%
7.5	1,998	1,810	9.4%
8	1,936	1,763	8.9%
8.5	1,876	1,717	8.5%
9	1,818	1,672	8.0%
9.5	1,762	1,629	7.6%
10	1,709	1,586	7.2%
10.5	1,657	1,545	6.8%
11	1,608	1,505	6.4%
11.5	1,561	1,466	6.1%
12	1,516	1,428	5.8%
12.5	1,473	1,392	5.5%
13	1,431	1,357	5.2%
13.5	1,392	1,323	4.9%
14	1,355	1,291	4.7%
14.5	1,319	1,260	4.5%
15	1,284	1,230	4.2%

Table 5 – Segment C - 500 kV HVAC Underground Transmission Line

	Magnetic Field Level 3 Feet Above Ground (milligauss)		
Distance from Centerline (feet)	3 Feet to Top of Duct Bank	3.75 Feet to Top of Duct Bank	Percent Reduction
-32.5	10.3	10.2	1.1%
-32	10.6	10.5	1.1%
-31.5	10.9	10.8	1.1%
-31	11.3	11.1	1.2%
-30.5	11.6	11.5	1.2%
-30	12.0	11.8	1.2%
-29.5	12.4	12.2	1.3%
-29	12.8	12.6	1.3%
-28.5	13.2	13.0	1.4%
-28	13.7	13.5	1.4%
-27.5	14.1	13.9	1.5%
-27	14.6	14.4	1.5%
-26.5	15.1	14.9	1.6%
-26	15.7	15.4	1.6%
-25.5	16.3	16.0	1.7%
-25	16.9	16.6	1.7%
-24.5	17.5	17.2	1.8%
-24	18.2	17.8	1.9%
-23.5	18.9	18.5	1.9%
-23	19.6	19.2	2.0%
-22.5	20.4	20.0	2.1%
-22	21.3	20.8	2.2%
-21.5	22.2	21.7	2.3%
-21	23.1	22.6	2.4%
-20.5	24.1	23.6	2.5%
-20	25.2	24.6	2.6%
-19.5	26.4	25.7	2.7%
-19	27.6	26.8	2.8%
-18.5	28.9	28.1	2.9%
-18	30.3	29.4	3.1%
-17.5	31.8	30.8	3.2%
-17	33.4	32.3	3.4%
-16.5	35.1	33.9	3.5%
-16	36.9	35.6	3.7%
-15.5	38.9	37.4	3.9%
-15	41.0	39.4	4.1%
-14.5	43.3	41.4	4.3%
-14	45.8	43.7	4.5%

	Magnetic Field Level 3 Feet Above Ground (milligauss)		
Distance from Centerline (feet)	3 Feet to Top of Duct Bank	3.75 Feet to Top of Duct Bank	Percent Reduction
-13.5	48.4	46.1	4.8%
-13	51.3	48.7	5.1%
-12.5	54.4	51.5	5.4%
-12	57.7	54.5	5.7%
-11.5	61.4	57.7	6.0%
-11	65.3	61.1	6.4%
-10.5	69.5	64.8	6.7%
-10	74.1	68.8	7.2%
-9.5	79.1	73.1	7.6%
-9	84.4	77.6	8.1%
-8.5	90.2	82.5	8.6%
-8	96.4	87.7	9.1%
-7.5	103.1	93.1	9.7%
-7	110.2	98.9	10.3%
-6.5	117.8	104.9	10.9%
-6	125.8	111.2	11.6%
-5.5	134.1	117.7	12.3%
-5	142.7	124.2	12.9%
-4.5	151.5	130.8	13.6%
-4	160.2	137.3	14.3%
-3.5	168.8	143.5	15.0%
-3	176.9	149.4	15.6%
-2.5	184.4	154.7	16.1%
-2	190.8	159.2	16.6%
-1.5	196.0	162.8	17.0%
-1	199.7	165.4	17.2%
-0.5	201.8	166.8	17.4%
0	202.1	167.0	17.4%
0.5	200.5	165.9	17.3%
1	197.3	163.7	17.0%
1.5	192.6	160.5	16.7%
2	186.5	156.3	16.2%
2.5	179.4	151.2	15.7%
3	171.6	145.6	15.1%
3.5	163.2	139.5	14.5%
4	154.5	133.2	13.8%
4.5	145.8	126.6	13.2%
5	137.2	120.1	12.5%
5.5	128.9	113.6	11.8%
6	120.8	107.3	11.2%

	Magnetic Field Level 3 Feet Above Ground (milligauss)		
Distance from Centerline (feet)	3 Feet to Top of Duct Bank	3.75 Feet to Top of Duct Bank	Percent Reduction
6.5	113.1	101.2	10.5%
7	105.9	95.4	9.9%
7.5	99.1	89.8	9.3%
8	92.7	84.6	8.8%
8.5	86.8	79.6	8.3%
9	81.3	75.0	7.8%
9.5	76.2	70.6	7.4%
10	71.5	66.5	6.9%
10.5	67.1	62.7	6.5%
11	63.1	59.2	6.2%
11.5	59.3	55.9	5.8%
12	55.9	52.8	5.5%
12.5	52.7	49.9	5.2%
13	49.7	47.3	4.9%
13.5	47.0	44.8	4.7%
14	44.4	42.5	4.4%
14.5	42.1	40.3	4.2%
15	39.9	38.3	4.0%
15.5	37.8	36.4	3.8%
16	35.9	34.6	3.6%
16.5	34.2	33.0	3.4%
17	32.5	31.5	3.3%
17.5	31.0	30.0	3.1%
18	29.5	28.7	3.0%
18.5	28.2	27.4	2.9%
19	26.9	26.2	2.7%
19.5	25.8	25.1	2.6%
20	24.6	24.0	2.5%
20.5	23.6	23.0	2.4%
21	22.6	22.1	2.3%
21.5	21.7	21.2	2.2%
22	20.8	20.4	2.1%
22.5	20.0	19.6	2.0%
23	19.2	18.9	2.0%
23.5	18.5	18.2	1.9%
24	17.8	17.5	1.8%
24.5	17.2	16.9	1.8%
25	16.5	16.3	1.7%
25.5	16.0	15.7	1.6%
26	15.4	15.2	1.6%

	Magnetic Field Level 3 Feet Above Ground (milligauss)		
Distance from Centerline (feet)	3 Feet to Top of Duct Bank	3.75 Feet to Top of Duct Bank	Percent Reduction
26.5	14.9	14.6	1.5%
27	14.4	14.1	1.5%
27.5	13.9	13.7	1.4%
28	13.4	13.2	1.4%
28.5	13.0	12.8	1.3%
29	12.6	12.4	1.3%
29.5	12.2	12.0	1.3%
30	11.8	11.7	1.2%
30.5	11.4	11.3	1.2%
31	11.1	11.0	1.1%
31.5	10.8	10.6	1.1%
32	10.5	10.3	1.1%
32.5	10.2	10.0	1.1%